



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

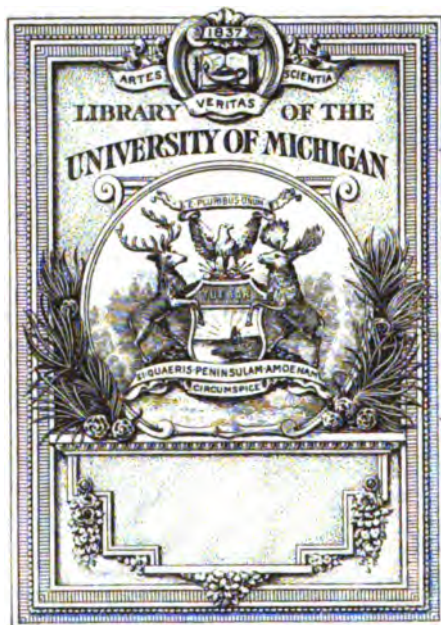
About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>



B 3 9015 00216 139 9

University of Michigan - BUHR



2.10.10

610.5

100

3

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

1.10.10

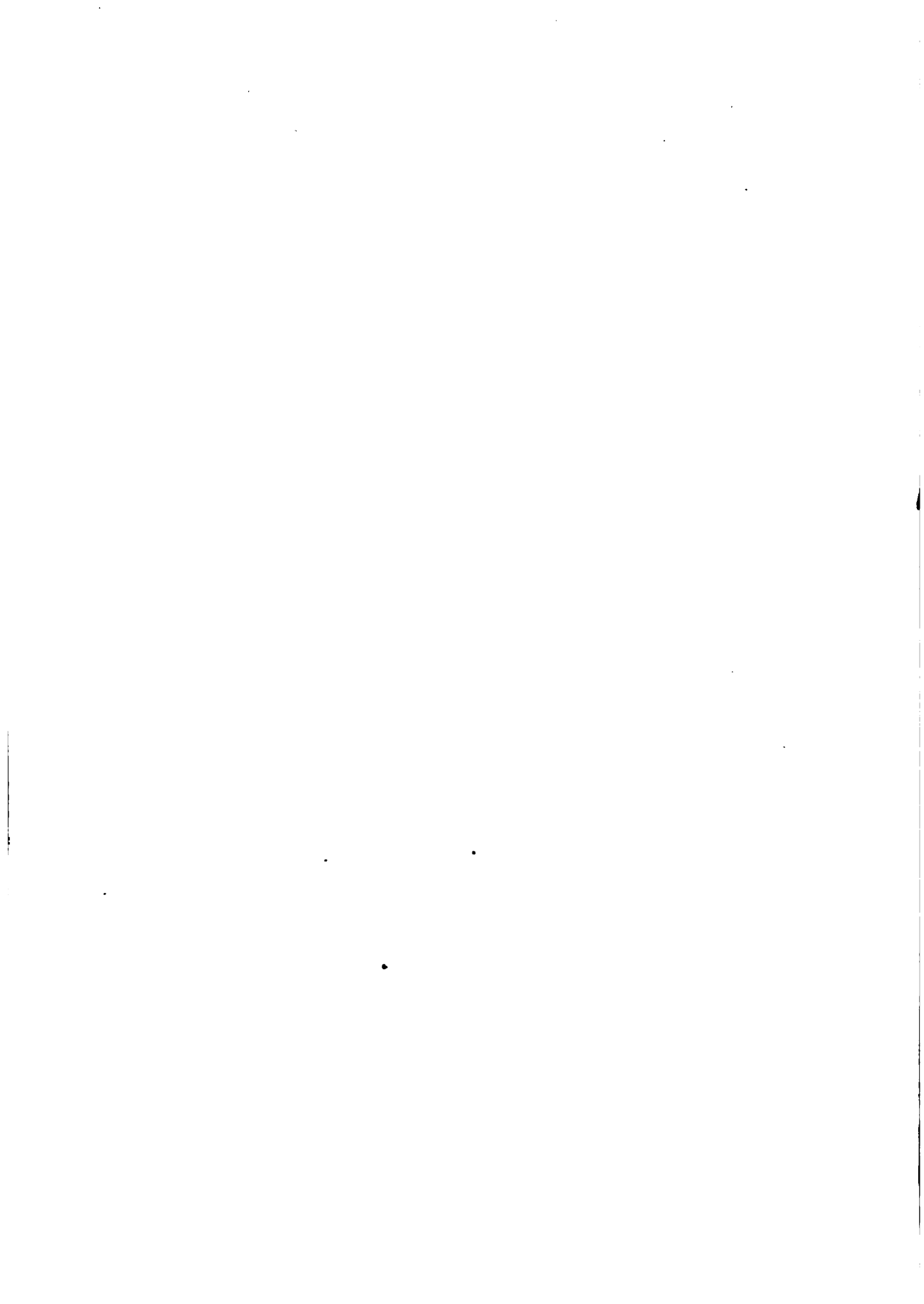
1.10.10

1.10.10

1.10.10

1.10.10

1.10.10



16422

THE MEDICAL RECORD.

A Weekly Journal of Medicine and Surgery.



EDITED BY

GEORGE F. SHRADY, A.M., M.D.

Volume 16.

JULY 5, 1879.—DECEMBER 27, 1879.

NEW YORK:
WILLIAM WOOD & COMPANY
27 GREAT JONES STREET.

TROW'S
PRINTING AND BOOKBINDING COMPANY,
201-213 *East 12th St.*,
NEW YORK.

LIST OF CONTRIBUTORS TO VOL. XVI.

ALLPORT, Dr. FRANK, Sycamore, Ill.
ANDREWS, Dr. E., Chicago, Ill.
ASHURST, Dr. JOHN, Philadelphia, Pa.

BARRETT, Dr. A. R., Richmond, Va.
BARTHOLOW, Dr. ROBERTS, Philadelphia, Pa.
BEANE, Dr. F. D., New York.
BEARD, Dr. GEORGE M., New York.
BIGELOW, Dr. HENRY J., Boston, Mass.
BIGELOW, Dr. H. R., Washington, D. C.
BODENHAMER, Dr. W., New York.
BOZEMAN, Dr. N., New York.
BRANDT, Dr. WM. E., Hanover, Ind.
BRIDGE, Dr. NORMAN, Chicago, Ill.
BROWN, Dr. C. W. M., Elmira, N. Y.
BULL, Dr. C. S., New York.
BURKE, Dr. MARTIN, New York.
BURRELL, Dr. F. A., New York.
BUSEY, Dr. S. C., Washington, D. C.
BUTTLES, Dr. M. S., New York.

CALLAN, Dr. P. A., New York.
CARO, Dr. S., New York.
CARPENTER, Dr. WESLEY M., New York.
CARROLL, Dr. ALFRED L., New Brighton, N. Y.
CHAMBERLAIN, Dr. W. M., New York.
CHAMBERS, Dr. T. ROLAND, New York.
CHAPMAN, Dr. E. N., Brooklyn, N. Y.
CLEMENTS, Dr. B. A., Surg. U. S. A.
CORNWELL, Dr. H. G., Youngstown, O.
COWLING, Dr. JAMES, Houston, Texas.
CRAMPTON, Dr. HENRY E., New York.
CUSHIER, Dr. ELIZABETH M., New York.
CUTTER, Dr. GEORGE R., New York.

DA COSTA, Dr. J. M., Philadelphia, Pa.
DANA, Dr. C. L., New York.
DAWSON, Dr. W. W., Cincinnati, O.
DORRAN, Dr. W. M., Mount Vernon, N. Y.
DOUGLAS, Dr. GEO. C., Salt Lake City, Utah.
DYER, Dr. JOHN I., Washington, D. C.

EDWARDS, Dr. EMMA W., Newark, N. J.
ELDRIDGE, Dr. S., Yokohama, Japan.
ELY, Dr. WM. S., Rochester, N. Y.

FEHR, Dr. JULIUS, Hoboken, N. J.
FORREST, Dr. W. E., New York.
FOSTER, Dr. FRANK P., New York.
FRIEDRICH, Dr. J. J., New York.

GARLAND, Dr. G. M., Univ. Vermont.
GEDDINGS, Dr. W. H., Aiken, S. C.
GILMAN, Dr. JOHN H., Lowell, Mass.

GODDARD, Dr. C. C., Texas.
GOODELL, Dr. WM., Philadelphia, Pa.
GOODFELLOW, Dr. G. E., Oakland, Cal.
GOODWILLIE, Dr. D. H., New York.
GOULEY, Dr. J. W. S., New York.
GRAHAM, Dr. DOUGLAS, Boston, Mass.
GRAY, Dr. L. C., Brooklyn, N. Y.
GRISWOLD, Dr. GASPAS, New York.
GROSS, Dr. SAMUEL D., Philadelphia, Pa.

HACHENBERG, Dr. GEO. P., Austin, Texas.
HAMILTON, Dr. J. W., Brooklyn, N. Y.
HANKS, Dr. H. T., New York.
HEMINGWAY, Dr. S., New York.
HODGKIN, Dr. J. B., Washington, D. C.
HOFFMAN, Dr. A. C., Jersey City, N. J.
HOWLAND, Dr. H. H., New York.
HUGHES, Dr. C. H., St. Louis, Mo.
HUNT, Dr. C. H., Stanwood, Iowa.
HUTCHINSON, Dr. WM. F., Providence, R. I.

JACOBI, Dr. A., New York.
JACOBI, Dr. MARY-PUTNAM, New York.
JUDSON, Dr. A. B., New York.

KANE, Dr. JOHN J., Ass't Surg. U. S. A.
KELLER, Dr. J. M., Hot Springs, Ark.
KEYT, Dr. A. T., Cincinnati, O.

LA RUE, Dr. A., Hillsboro, W. Va.
LATHROP, Dr. G. H., Wurtsboro, N. Y.
LEFFERTS, Dr. GEO. M., New York.
LENTE, Dr. F. D., New York.
LEO, Dr. SIMEON, New York.
LINDSLEY, Dr. VAN S., Nashville, Tenn.
LITTLE, Dr. JAMES L., New York.
LYMAN, Dr. HENRY M., Chicago, Ill.

MACDONALD, Dr. A. E., New York.
MANLEY, Dr. T. H., Lawrence, Mass.
MARTIN, Dr. HENRY A., Boston, Mass.
MASON, Dr. ERSKINE, New York.
MATHER, Dr. E. E., Williamstown, Mass.
MATTISON, Dr. J. R., Brooklyn, N. Y.
MAYNARD, Dr. WM. J., Chicago, Ill.
MC CREERY, Dr. GEO., New York.
MC CREERY, Dr. JOHN A., New York.
MCFALLS, Dr. D., Park City, Utah.
MERCER, Dr. A. CLIFFORD, Syracuse, N. Y.
MERRITT, Dr. JOHN, Brooklyn, N. Y.
MEYER, Dr. JOSEPH, New York.
MILLER, Dr. S. M., Philadelphia, Pa.
MILLS, Dr. C. K., Philadelphia, Pa.
MORJÉ, Dr. B., New York.

MOORE, Dr. W. O., New York.
MORTON, Dr. WM. J., New York.
MUDD, Dr. JOSEPH A., New Salem, Mo.]
MURCHISON, Dr. CHAS., London, Eng.

NAYLOR, Dr. W. H., New York.
NEFTTEL, Dr. WM. B., New York.

OTIS, Dr. FESSENDEN N., New York.
O'TOOLE, Dr. MICHAEL C., San Francisco, Cal.,

PALLEN, Dr. MONTROSE A., New York.
PARKER, Dr. W. THORNTON, Lenox, Mass.
PETERS, Dr. JOHN C., New York.
PIFFARD, Dr. H. G., New York.
POMEROY, Dr. O. D., New York.
POOLE, Dr. THOS. W., Ontario, Canada.
POORE, Dr. CHAS. T., New York.
PORTER, Dr. P. B., New York.
PORTER, Dr. WM., St. Louis, Mo.
POST, Dr. A. C., New York.
POST, Dr. GEO. E., Beirut, Syria.
PUTZEL, Dr. L., New York.

RANNEY, Dr. A. L., New York.
REYBURN, Dr. ROBT., Washington, D. C.
RHOADS, Dr. M. A., Reading, Pa.
ROBINSON, Dr. BEVERLEY, New York.
ROCKWELL, Dr. A. D., New York.
ROE, Dr. J. O., Rochester, N. Y.
ROOSA, Dr. D. B., St. JOHN, New York.

SATTERTHWAITE, Dr. T. E., New York.
SCHWEIG, Dr. GEO. M., New York.
SCOFFIELD, Dr. D., Washington, Iowa.
SEGUIN, Dr. E. C., New York.
SEXTON, Dr. SAMUEL, New York.
SHRADY, Dr. GEO. F., New York.
SIMMONS, Dr. D. B., Yokohama, Japan.
SMITH, Dr. A. A., New York.
SMITH, Dr. J. D. S., Bridgeport, Conn.
SMYTHE, Dr. A. G., Baldwin, Miss.
STANTON, Dr. M., Syracuse, N. Y.
STARR, Dr. LOUIS, Philadelphia, Pa.
STEIN, Dr. ALEX. W., New York.
STILLMAN, Dr. CHAS. F., Plainfield, N. J.
STIMSON, Dr. L. A., New York.
SWEET, Dr. A. L., Southold, N. Y.

TANNER, Dr. J. A., Jr., U. S. A., Boston, Mass.
THOMAS, Dr. T. GAILLARD, New York.

UPSEUR, Dr. JOHN N., Richmond, Va.

VAN DERVEER, Dr. A., Albany, N. Y.
VAN SANTVOORD, Dr. R., New York.

WAITE, Dr. T. C., Pittsburg, Pa.
WALKER, Dr. EDWIN, Evansville, Ind.
WARD, Dr. J. M., Cornelia, Mo.
WARNER, Dr. E. S., New York.
WARREN, Dr. JOSEPH H., Boston, Mass.
WATSON, Dr. B. A., Jersey City, N. J.
WEBSTER, Dr. DAVID, New York.
WEIR, Dr. ROBERT F., New York.
WENDT, Dr. E. C., New York.
WHEELER, Dr. C. S., Brattleboro, Vt.
WHITE, Dr. F. V., New York.
WHITTAKER, Dr. JAMES T., Medical College of Ohio.
WILLIAMS, Dr. C., New York.
WILLIAMS, Dr. S. W., New York.

*Institutions and Societies from which Reports have been
Obtained.*

AMERICAN DERMATOLOGICAL ASSOCIATION.
AMERICAN GYNECOLOGICAL SOCIETY.
AMERICAN NEUROLOGICAL ASSOCIATION.
AMERICAN OPHTHALMOLOGICAL SOCIETY.
AMERICAN OTOLOGICAL SOCIETY.
AMERICAN PUBLIC HEALTH ASSOCIATION.
BELLEVUE HOSPITAL, New York.
BRITISH MEDICAL ASSOCIATION.
CHICAGO GYNECOLOGICAL SOCIETY.
CHICAGO MEDICAL SOCIETY.
CHILDREN'S HOSPITAL, Philadelphia, Pa.
EPISCOPAL HOSPITAL, Philadelphia, Pa.
GERMAN HOSPITAL, Philadelphia, Pa.
HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.
JEFFERSON MEDICAL COLLEGE HOSPITAL, Philadelphia, Pa.
MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.
METROPOLITAN THROAT HOSPITAL, New York.
NEW HAMPSHIRE MEDICAL SOCIETY.
NEW YORK ACADEMY OF MEDICINE.
NEW YORK HOSPITAL.
NEW YORK NEUROLOGICAL SOCIETY.
NEW YORK PATHOLOGICAL SOCIETY.
OBSTETRICAL SOCIETY OF LONDON, ENG.
PENNSYLVANIA HOSPITAL, Philadelphia, Pa.
PHILADELPHIA ACADEMY OF NATURAL SCIENCES.
PHILADELPHIA COLLEGE OF PHYSICIANS.
PHILADELPHIA HOSPITAL.
PRESTON RETREAT, Philadelphia, Pa.
WEST CHICAGO MEDICAL SOCIETY.
WOMAN'S HOSPITAL, New York.

THE MEDICAL RECORD.

VOL. XVI.

JULY 5, 1879.

No. 1.

Original Lectures.

EXOPHTHALMIC GOITRE OCCURRING IN A CHILD, AND FOLLOWED BY ST. VITUS' DANCE.

A CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL.

By A. JACOBI, M.D.,

CLINICAL PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—The history of the case before us is as follows: Hattie Wagner, aged thirteen years, and a native of the United States, was admitted to the hospital on the 25th of January, 1879. Her father, æt. 58, is living, and in good health. Her mother, æt. 40, is living, but has never been a strong woman. She has always been nervous and anæmic, and has had four dead and eight living children. Our patient has always been what is commonly called "a delicate child." She has had two falls, and both times she struck upon her head; the first occurred when she was five, and the second when she was seven years old. Her mental condition has been fair. Some years ago she had exophthalmic goitre, for which she was treated at the Mt. Sinai Hospital. On December 30, 1878, she had an attack of pain in her right shoulder, and soon after lost the use of her right hand and leg. She had been attending upon her sick mother, and had not taken much food for several days immediately preceding the attack. On admission, it was noticed that there was some swelling of the thyroid gland, the left lobe being most prominent. The action of the heart was irregular; no valvular murmurs were found. The lungs appeared to be normal. Her gait was characteristic of well-marked chorea, and the choreic movements were almost continuous. When asleep the movements are usually suspended, but not invariably. She was put upon the use of iron. On February 8th she suffered considerably from headache, and bromide of potassium was ordered. On March 1st she had not had headache for some time, and the chorea was improving.

The case before us is the twelfth, occurring in children, which has been recorded in medical literature. Three of the eleven, previously related, are my own, and have been published in the June number, 1875, of the *American Journal of Obstetrics and Diseases of Women and Children*. The scarcity of the cases and the interest connected with them will be an excuse for a recital of their histories in this connection. Mary S., Bolton, Lake George, came under my observation in the summer of 1874, during my residence in the neighborhood of that village. She was then ten years old, and had suffered from her symptoms "for years." She was of average size; well developed, pale, intellectual; a good scholar, a poor eater. Now and then her face and her feet would swell. The functions of her rectum and bladder were normal. She complained of great weakness; could not walk without an effort; the heart would beat violently; and dysp-

noea set in on slight exertion. The dulness over her heart was too extensive by one-half; the shock perceptible to both hand and eye from the third to the sixth intercostal spaces. A loud systolic murmur was audible all over the chest, covering the diastole. It was of equal strength over mitral and aortic regions, and extended into the carotids. The radial pulse was feebler than normal. There was no history of any disease except malaria; no rheumatism. No swelling of the neck, no affection of the eye was noticed at that one visit she paid me; at all events, it must have been very slight, if it was present at all. Lungs were normal; nor could anything abnormal be discovered in her abdominal viscera. Under the circumstances my diagnosis was that of a general chronic endocarditis, and the prognosis a very grave one. For a long time, during the following autumn and winter, she took iron and digitaline, and followed such dietetic rules as I saw fit to give. She called upon me again the day I left that part of the country, in the early part of September, 1875. To my astonishment she was better to all appearances in her general health than the previous year. She could walk better, and her appetite had improved. The local symptoms were the same everywhere. The size of the heart was perhaps a little less; the murmur as loud and extensive as last year. Besides, I noticed at once a slight protrusion and immobility of her eyeballs, a staring look, and somewhat swelled lower eyelids, and a considerable goitre. The diagnosis was changed into that of Graves's disease, and the prognosis corrected accordingly. Three months she took tinct. ferri and digitalis regularly, and when, in January, 1876, I received her news, they were favorable. Since that time she has been treated now and then, but she has not outgrown her hydræmia and some slight cardiac murmur, to this very day.

Dr. Moeller, of West Thirty-seventh street, introduced to me a little patient of nine years, Louisa W., whom he had attended for several months, a few years ago. When presented to me she was greatly improved already. Still she was anæmic, and of small stature; smart, and a good scholar. The contractions of her heart were both visible and palpable over three intercostal spaces—the pulsations of both carotids unusually distinct. The systolic murmur was strong and audible over the whole chest, both anteriorly and posteriorly. Her eyes did not protrude. The thyroid gland was slightly swollen on the left side; very much so, and protruding, on the right. It was not the first time, however, that I noticed a unilateral swelling of the thyroid gland in Graves's disease. She had steadily improved under the use of iron and digitaline (gr. $\frac{1}{2}$ daily) and quinia, and roborant diet, and thus the treatment was continued. When I saw her four months afterward, her general appearance was about normal; still the child was small, her eyes did not protrude, her goitre was not visible to the left of the median line, and less marked than formerly on the right; her heart's action was less impetuous, and the murmur less loud and less extensive. Of her complete recovery I entertained no doubt.

The third case is an exact counterpart of the one just mentioned. She was a patient of the clinic, and its records contain the few notes which were taken at

her two visits. She was nine years old, of average size, not remarkably anæmic. Heart loud and impetuous; systolic murmurs very strong and extensive; eyes not protruding; the right lobe of the thyroid considerably, the left but slightly swelled. Nothing was known about a previous disease, nor was there any discoverable at the time of our examination. A similar treatment was resorted to, with what effect we have had no means to ascertain since.

The main symptoms of the disease, when found in children, are the same as reported by Flajani, Parre, and Adelmann, and finally appreciated in their full value by Graves and Basedow. It is well known to you that the complex symptoms are palpitation and enlargement of the heart, swelling of the thyroid gland, and protuberance of the eye. In most of the cases all the symptoms are present; in some, one or the other may be absent. Particularly is that the case with regard to the swelling of the thyroid gland and the exophthalmos: the latter perhaps more so than the former. In fact, in a number of cases of children affected with the disease, the latter was either absent, or but imperfectly developed. The area of dulness on percussion over the heart is considerably enlarged. Its shock is seen over two or three, sometimes more, intercostal spaces. It is not always very strong, but distinctly visible. There are murmurs all over the heart, and over a greater portion of the large arteries and veins. Both arteries, and particularly veins, are found dilated. Even the arteries of the retina have been found enlarged. The pulse is very frequent—120, 150, 180, and even more. The palpitation of the heart and the corresponding dyspnoea, is a very serious and constant complaint on the part of the patient. The circulation is suffering all over the system. There is sometimes œdematous swelling of the hands and feet. There is dizziness and great irritability. The complexion of the patients, who are mostly very anæmic, is generally pale and sallow, and changes very frequently. The face suddenly flushes, is now and then covered with perspiration; so with other parts of the body. Ebstein reports a case of unilateral hyperidrosis; and similar observations have been made by other authors, such as Nitzelnadel and Chvostek. The temperature is generally not increased; but when the nervous excitement is very great a slight increase has sometimes been observed. Though the dilatation of the blood-vessels be very general, the spleen has, as a rule, not been found enlarged. Nor have there been found the so-called *tâches cérébrales* of Trousseau, which are so commonly found in meningitis, sometimes also in typhoid fever, or toward the fatal termination of other serious diseases, and mean nothing else but vaso-motor paralysis. The swelling of the thyroid gland will sometimes be seen at an early stage of the disease, and its increase in a number of cases is very rapid. Sometimes it takes a long time, however, before it is fully developed. Its condition is not always the same. It may be painful or painless; soft or hard; compressible or not. It may be unilateral or bilateral; it may be changed within a very short time, or remain unchanged for a long time. In fact, the gland may never return to its original size. When unilateral, it appears the right lobe is more frequently swollen than the left. There are but few cases, however, in which but one lobe was affected through the entire course of the disease.

The last symptom in the series enumerated is always the exophthalmos. It may be very slight. Sometimes its only symptom will be a certain stare on the part of the patient. Sometimes, however, the eye protrudes to such an extent that it appears very

large, indeed, a large portion of the sclerótica being visible outside the eyelids, which either close over the eye with great difficulty, or not at all. In consequence of this disproportion between eyelids and eye, the movement of the eyelids is retarded, and very slow indeed—a symptom which Græfe considered pathognomonic of the disease. In those cases in which the cornea is not sufficiently covered by the eyelids, and the movement of the latter is interfered with, the cornea is apt to suffer, and in not a few instances in which the disease has occurred in adults, destruction of the cornea has taken place in consequence. No such case, however, has been observed among children.

All the symptoms enumerated can be traced back to the disorders of the vaso-motor system, the sympathetic, and principally to its cervical portion. In fact, a number of anatomical changes have been found in the upper cervical ganglion in such cases. Still the number of post-mortem examinations has been but limited. The changes which have been found have either been proliferations of connective tissue, such as found by Lancereaux in the left ganglion inferius colli; or gray infiltration, such as reported by Reid in the middle and lower cervical ganglion; or enlargement and thickening of the cervical sympathetic, as found by Virchow. But when we come to sift the symptoms, it appears, from the knowledge we have of the physiological functions of the sympathetic, that there is apparent discrepancy. The large blood-vessels of the neck and the head are considerably enlarged—a symptom which we have been in the habit of attributing to vaso-motor paralysis. The symptoms belonging to the heart can be best explained by irritation of the sympathetic, and also those belonging to the unstriated muscles in the orbit and the eyelids. This discrepancy, however, is explained away, and, it appears to me, very satisfactorily, by the discoveries of Goltz and others, who find that the dilatation of blood-vessels may be due to vaso-motor paralysis, but is due, in many cases, to the irritation of sets of fibres of the sympathetic, which, when stimulated, will dilate blood-vessels. In this manner all the symptoms, those belonging to the eye, the thyroid gland, and the heart, would be best explained by taking them as the result of irritation of the sympathetic. The majority of cases which have been observed belong to adult women. In most of them this affection was not the only disease noticeable among them. Their history was one of previous disorganization of the nervous system. Many of them were anæmic from childhood, and suffered from disturbances of menstruation. A few whom I remember had suffered from St. Vitus' dance when children. Many had suffered long from trifacial neuralgia, from intercostal neuralgia, from hysterical symptoms of all kinds, and, finally, the symptoms of Graves' disease would develop themselves. There have also been complications with intellectual disorder. In a few cases there were mania, melancholia, and epilepsy. Chlorosis has existed in a great many cases. Some were able to trace their disease back to emotional excitement, to sudden fright, or to traumatic injury of the head. In a very few cases—thus in the case reported by Solbrig, a boy of eight years—the mother had suffered from a similar affection. Thus the impression would be, even if there were no proofs, that the disease is not only intimately connected with nervous disorders, but is a nervous disorder itself, an impression more than fortified, even verified by anatomical changes found in post-mortem examinations and the physiological explanation of all the symptoms. The case before us is peculiar, in that it has gotten nearly well, with the

exception of a moderate amount of swelling of the thyroid gland, which is pretty hard, and not compressible. There is hardly any symptom left which can be traced back to the original disease—that is, with the exception of the chronic enlargement of the thyroid gland, but she must be considered well of her exophthalmic goitre. She is so well that there are not even cardiac murmurs, neither organic nor functional, and certainly there is no exophthalmos visible at this time. In this condition it appears she has been for a year or two. No serious disorder has been noticed in her heart. To what extent her intellect or temper have suffered from her general disposition or from her sickness we are certainly not able to state, but there is a serious affection now present which, though it has not been observed very frequently, must still be brought into some connection with her original sickness. Two cases of Gagnon exhibited the very same complication which we notice here—that with *chorea minor*. In those cases also the exophthalmic goitre was the first affection, and was then followed by St. Vitus' dance. Our case exhibits none of the symptoms that we are apt to find in a large number of cases of *chorea minor*. There are no cardiac murmurs, there is no pain in the head or vertebral column, neither spontaneous nor upon pressure, which we meet with so very frequently. Thus it is to be taken as a simple neurosis, the cause of which is certainly unknown to us.

Without intending to go further into the principles of the pathology of the disease, I have to point to a few facts which it is well to emphasize once more. This child has got nearly well of her exophthalmic goitre. Heart and eye are normal. There is enlargement of the thyroid gland, which, as all the other symptoms have disappeared some time ago, will probably prove permanent unless relieved by proper treatment. It is now years since the disease commenced; and it may take years before the goitre will entirely disappear, if at all. If it does, the whole sickness will run a course perhaps of six or eight years—a not uncommon thing, when we remember such cases as, after lasting a half-dozen or a dozen years, would never get entirely well. On the other hand, it is worth while to remember that some of the cases reported have got well in a proportionately short time. Solbrig's case is, it is true, an exception; but it was so acute in its beginning and in its course, that ten days were sufficient for the disease to show its first decided symptoms, and disappear. The rule is, that the patients suffer long, and recover but partially. The percentage of complete recoveries is but small. Twenty-five per cent. have recovered completely. As far as children are concerned, it appears that most of them have not been so sick as many adults; and partial recoveries have, at all events, been accomplished in shorter time than amongst adults.

If the pathology of the disease is such as I have stated, the indications for treatment are simple enough. The results, as you have seen from the remarks made on the long duration of the sickness, and the small percentage of complete recoveries, are indeed not very encouraging. We have to deal with irritation of the sympathetic nerve, with dilatation of blood-vessels, with a general neurotic condition, with deficient power of resistance, with anemia, etc. Thus there are indications with regard to the general condition of the patients, and in regard to the direct treatment of the disease. As far as local treatment of the sympathetic ganglia of the neck is concerned, galvanism has been resorted to as one of the principal, perhaps as the main, remedies. It has been expected that it

would, when directly applied to the ganglion of the neck, result in diminishing the size of the blood-vessels and the circulation about the heart, the neck, and the head. A great many cures have been reported; but it has always appeared to me that the novelty of the remedy had a great deal to do with the large number of speedy and absolute recoveries boasted of.

In general, it must not be forgotten that the application of the galvanic current to the deep tissues, and more still to a small point, has its great difficulties. The permeability to the electrical current, on the part of the tissues, differs greatly; and thus it is not in our power to limit the course of the galvanic current in certain directions. At all events, a portion of the galvanic current is lost. Moreover, a number of tissues and organs are influenced in the neighborhood of the point we aim at, and thus the effect, if not counteracted, is modified. I have always doubted whether galvanization of the sympathetic, by applying one electrode to the nape of the neck, and one directly to the ganglion by pressing down along the sterno-cleido-mastoid muscle, was as certain as it has been represented to be.

I can imagine that, in lean persons, and with a small electrode, the object can be accomplished to a certain extent, but to a certain extent only. It is impossible that an effect should be accomplished without, at the same time, affecting the pneumogastric nerve, which is in the immediate neighborhood, and which, so far as effect upon the heart is concerned, is directly antagonistic to the effect upon the sympathetic ganglia controlling the heart. I can therefore imagine that the irritation of the sympathetic is directly counteracted by irritation of the pneumogastric, both of them being reached by the same galvanic current. That I do not stand alone in this opinion has been proved in an essay by G. Fischer in the *Deutsch. Archiv für klin. Med.*, Vol. XX., p. 175.

As, however, this point is not absolutely settled, it behooves us to defer our final judgment until the cases are more numerous. Certainly, if a large number of cases have been, or will have been, reported, we are justified in relying upon a remedy, although we do not know much about its *modus operandi*. If the irritation of the sympathetic nerve is the cause of the disease, it is very much more probable that the sedative effect of the galvanic current is the one to be relied upon, than that we should have to fall back upon its irritant effect. If that be so, very probably the frequent application for a short time—a few minutes only—will be more indicated than an application once or twice in the twenty-four hours. In connection with this theory and advice, the number of cases in which the bromides have given relief are explained by the sedative effect produced by the remedy. It is not at all necessary to fall back upon the potassium, with its effect upon the heart. Very probably its effect is due to the bromine in the combination. The theory according to which an irritation of the sympathetic is the cause of the disease explains best the success—at least, partial success—which digitalis has given in a number of cases, especially that of Solbrig, and in a few of my own. By acting as a stimulant on the pneumogastric nerve, it would relieve the symptoms brought about by irritation of the sympathetic. In a majority of cases I have seen, not only in children, but in adults, there has been a decided amelioration of symptoms under the use of digitalis. Digitalis will act pleasantly in the same degree as belladonna would act unfavorably. I add this remark at once, because belladonna, or its alkaloid atropia, have been so frequently administered in a number of neurotic affections.

Of nerve specifics, I know of but one that has acted favorably in a few of my cases, and that is *arsenic*. As a rule, it is well tolerated. Its effect upon the digestive organs has not been remarkably unfavorable. On the contrary, it appears that it improves nutrition in neurotic persons suffering from anæmia, and a low standard of assimilation. It is always worth while to try it, either as Fowler's solution, or better as arsenious acid, and better still in the shape of Pearson's solution of the arseniate of soda, for a successive period of weeks, sometimes of months.

Ergot has been resorted to in a number of my cases. Its effect upon the size of blood-vessels, no matter what its original effect may be upon the nerve matter, has always encouraged me in administering it in such cases, and I feel positive, without being able to explain the action in every instance, that I have seen good results follow its use. The same I can say of quinine. Not unfrequently, therefore, have I combined ergot and digitalis, or ergot and quinine, or ergot, quinine, and digitalis, and believe that the combination of two or of all three has yielded good results. So far as ergot is concerned, it is desirable to begin with small doses. Even mild preparations, such as the fluid extract, sometimes are not well tolerated, and it will be necessary to discontinue them and use ergotine, either Bonjean or Squibb's instead. Very frequently, almost uniformly, when the former was not well tolerated, the ergotine in the form of pills and in the combinations enumerated above, was well borne and was successful. The constitutional debility in such cases will, as a rule, bear iron very well indeed. But sometimes it is tolerated only when the vascularity and irritability has partly disappeared; while these are very high it is better not to give it at all; arsenic is certainly generally better than iron. When the frequency of pulse has been diminished to a certain extent, when the flushing has disappeared, and when the local and general perspiration has, at all events, been reduced, and the palpitations are less, the time for the administration of iron has arrived, and until that time other restoratives are indicated rather than iron. When the symptoms are greatly modified, and the swelling of the thyroid gland remains, the preparation of iron to be used is the iodide, and the syrup of the iodide of iron is a mild form of administering it. It is well tolerated by the digestive organs, and any tendency to decomposition or fermentation on the part of the contents of the stomach is, to a certain extent, counteracted by the iodine developed by the decomposition of the preparation. Not infrequently in adults, and also in children, will the syrup of the iodide of iron suffice both as a stomachic and as a restorative. When, as you see it here, there is permanent swelling of the thyroid gland, not so much due to dilatation of blood-vessels as to induration resulting from cellular tissue hyperplasia, the iodides are indicated. As our patient here is anæmic, I do not propose to give her the iodide of potassium, but the iodide of iron. I believe that local treatment with the tincture of iodine, or the application, twice a day, of iodoform in collodion (1:15), will certainly do good. I should also propose to allow a mild galvanic current to be applied to the tumor for its electrolytic effect, six or eight minutes, once or twice daily.

"SYPHILIS OF THE BRAIN AND SPINAL CORD," a series of lectures, which appeared in *The Medical Press and Circular*, have been published for the author, Dr. Stretch Dowse, by Baillière, Tindall & Cox, of London. Much matter and several colored plates have been added to this reprint.

Original Communications.

CAUSES OF DEATH IN SURGICAL OPERATIONS.

By A. L. RANNEY, M.D.,

ADJUNCT PROFESSOR OF ANATOMY, IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

PART II.

AIR IN THE VEINS.

Etiology.—This distressing accident has always occurred, as far as my research has extended, in operations about the head, neck, or axilla.

Experiments on animals—by Morgagni, Vansalva, Bichat, and Nysten—have shown death to arise in the dog from an injection of three cubic inches of air into the jugular vein, and in the horse from three ordinary human expirations.

Bichat, in his experiments, concluded that even *one bubble* might result in death; but his associate investigators—Bell, Magendie, Amussat, Cormack, Wattman, Nysten, and Erichsen—do not verify such a conclusion.

Death seems to depend not only upon the amount of air introduced, but the rapidity of the injection seems also greatly to influence it.

In surgery, however, we have only to deal with the *spontaneous* admission of air into venous cavities, dependent upon a thoracic vacuum existing both within the pleuritic and pericardial sacs, and occurring during the act of inspiration.

Pathology.—There has been much discussion and many theories as to the exact physiological condition produced by the entrance of air into veins and the mechanism of its action as a cause of death.

Bell's theory argued that death was the direct result of *air upon the medulla oblongata*.

Cormack ascribes death to *distention of the right heart* alone, without abnormal valvular or pulmonary conditions.

Erichsen denies both of these conclusions, and claims that death results from *obstruction in the pulmonary capillaries* from the frothy condition of the blood, which resists the vis-a-tergo of the heart.

This theory has had great support; is based upon extensive experiments and pathological research; and, where small quantities of air enter veins, probably is correct.

Moore, however, in his paper on this subject, advocates an explanation, in which the *valvular* element is brought out as the most important factor, and which certainly merits attention.

He states his explanation briefly as follows: 1. Air, on entering the right ventricle, fails to close the wet tricuspid valve during the ventricular systole, from its light density and compressibility. 2. During the following diastole of the heart the air enters, or rather floats, into the pulmonary artery. 3. During the second ventricular systole the wet *pulmonary* valves also fail to close, and adhere to the sides of the vessel. 4. The succeeding diastole now draws into the ventricle blood from both the auricle and the lungs. 5. The cardiac systole now returns the blood again to its original situation, as both the tricuspid and pulmonary valves are open, and thus the circulation becomes arrested.

These two latter explanations probably cover the mechanism of death; the former being the most plausi-

ble when the amount of air in the heart cavities is small, the latter when a large quantity of air suddenly is introduced.

History.—In 1818 Beauchesne reported the first case of this accident occurring during the removal of a tumor of the right shoulder, the internal jugular vein being wounded. The patient lived fifteen minutes.

Subsequently cases were reported by Dupuytren, Delpech, Castara, Roux, Ulrick, Mirault, Warren, Mott, Malgaigne, Bégin, Erichsen, Cooper, Clemot, and others. Some of those recovered; some met almost instant death; some died of pneumonia from bronchial irritation at a later date.

In all of these cases, however, an abnormal condition of the opened vein existed, characterized by a failure to collapse, termed by the French *canalization*.

This abnormal condition may be produced either *artificially* or by some *anatomical* changes.

A. Artificial canalization may result from one of four conditions, viz.: 1. Tension of the aponeuroses, holding the mouth of a vein open. 2. Veins opened by platysma contraction. 3. Traction on the pedicle of a tumor. 4. Vein at an angle of the wound opened by traction on the flaps.

B. The abnormal anatomical conditions producing canalization are: 1. Indurated cellular investments about the vein. 2. Induration, or inflammatory thickening of the venous coats.

Thus in Beauchesne's case traction existed; in Delpech's, hypertrophy of axillary vein; in Castara's, section occurred during traction; in Roux's, section occurred during traction; in Ulrick's, the vein was enclosed in a tumor; in Mirault's, the vein was enclosed in a tumor; in Warren's, tension from position of arm existed; in Mott's, the *facial vein* was tense from position of the head; in Malgaigne's, the vein was enclosed in the tumor; in Bégin's, the jugular vein was tense from traction.

Symptoms.—When air is allowed to enter into the veins of a dog by section, there occurs: 1. A hissing noise, with gurgling at the mouth of the vein. 2. Struggles during the subsequent inspirations. 3. A churning noise at the apex of the heart during the ventricular systole, with a bubbling, thrilling, and rasping sensation on palpation. 4. The circulation becomes feeble, but the heart's action *remains forcible*. 5. The animal becomes unable to stand, rolls over, utters a few plaintive cries, is convulsed, extrudes its feces and urine, and dies.

In man, however, there are additional symptoms given us by the *expressions* of the patient; thus the patient experiences terrible constriction in the thorax immediately after the air enters; screams, moans, and subsequently whines as the symptoms increase. The pulse early becomes imperceptible, the heart's action labored; convulsions come on rapidly, and death usually occurs. Still, in Mirault's case three or four hours elapsed before death; in Clemot's, several hours; in Beauchesne's, fifteen minutes; in Roux's and Malgaigne's, death from pneumonia ensued; while in Erichsen's and Cooper's cases, recovery took place.

Treatment.—As *prevention* of this accident is of vital importance, the following suggestions may be of value: 1. Always close the mouth of any *open vessel instantly*, both on the proximal and distal end, and compress every vein before cutting it. 2. Avoid raising *any tumor on the shoulder* in operations about the neck, head, or axilla, without protecting the large veins by pressure. 3. Compress, between the wound and thorax, if fear exists, during alterations in the position of patient or tumor. 4. Bandage the chest

and abdomen tightly to prevent *gaspings respirations*, which tend greatly towards this accident.

As to the plan of *actual treatment*, after the accident has occurred, many suggestions have been offered, though their value will depend somewhat on the views held as to the mechanism of death. Thus Moore advises a *supine* position, to allow the blood to fall to the *back* part of the heart, and thus raise the tricuspid valves. Others advise the head low and the feet high, to relieve the anæmia of the medulla. Mercier suggests *compression of the femorals*, axillaries, and abdominal aorta, for the same object; but this is objected to by others on account of the necessity of venous return, which is retarded by this method. Warren advises either *bleeding* from the temporal artery, *tracheotomy*, or *stimulants*, as the indications seem to demand, with galvanic shocks across the chest in case the heart's action seems to fail. Gerdy *compresses the chest*, hoping to expel or facilitate the passage of air through the lungs. In apparently fatal cases, Amussat and Blandin recommend *suction of air* from the heart, by means of a catheter passed into the open vein, or into right jugular if the former be impossible, with compression of chest at the same time. Magendie and Roux advocate suction alone. Reid and Cormack suggest the *opening of the right jugular vein* to relieve the right auricle.

Many of these plans have to me serious objections. Compression of the chest, after the accident has occurred, seems useless, and increases the pulmonary obstruction. Bleeding from the temporal artery depletes the already empty arteries. Tracheotomy only relieves a secondary symptom (dyspnea). Erichsen lays great stress on artificial inflation of the lungs to overcome the obstruction in the pulmonary capillaries, and suggests that mechanical respiration be kept up after this procedure, using at the same time ammonia to the nostrils.

Artificial respirations, with the *mouth and nostrils closed*, have been suggested as a remedial measure, the object being to expel air from the heart by the vein through which it entered. Finally, *injections of warm water* into the heart cavity, to render the valves movable, and subsequent artificial respiration to keep up the cardiac action, is resorted to, and recommended by Moore as a remedy in the severe type of cases. His steps for this operation are as follows: 1. Raise head during the injection, to allow air to escape through the fluid. 2. Open some vein in the neck, and evacuate its blood, to further assist the escape of air. 3. Avoid throwing in additional air with the syringe. 4. Inject with force enough to *FILL*, but not *distend* the heart cavities. 5. To inject two ounces at a time, with velocity enough to raise the wet valves which are adherent to the walls of the heart. 6. To stimulate the heart's action, during the operation, by galvanism and artificial respiration.

Without pausing to elaborate these means of treatment, I pass now to the *third* source of death dependent on vessels, viz.: embolism and apoplexy.

EMBOLISM AND APOPLEXY.

By embolism we mean a plug in a vessel interfering with the circulation of the blood, and formed at a point more or less distant from the seat of obstruction; by apoplexy, the escape of blood from a vessel into the cerebral tissue. I have coupled the two, since cerebral embolism is the most common form in fatal cases, and because there are some marked points of similarity in the symptoms of *this form* and that of apoplectic extravasation. Both, if occurring during

a surgical operation, have been preceded by abnormal anatomical conditions, and owe their occurrence to the excitement of the operation, rather than to any act of the surgeon. Still, as these pathological conditions which previously exist may be determined, or suspected, before the date of the operation, the occurrence of either of these causes of death is not an absolutely unavoidable accident, and, in many cases, not undeserving of censure.

Etiology.—Embolism is usually caused by a former endocarditis, producing vegetations upon the valves, though it may result from a phlebitis, or from spontaneous coagulation of blood in small capillaries, from pressure of tumors, a pyæmic condition, and other causes; these plugs subsequently becoming movable. The former condition, viz., vegetations on the valves, is, however, the one most likely to produce abnormal cerebral conditions, as emboli from the venous system are seldom arrested till they pass through the right heart, and are mostly entrapped in the pulmonary organs.

Apoplexy, on the contrary, is not necessarily associated with heart lesions, but rather is produced by an atheromatous condition of the vessels, which exists as a result of a previous endarteritis from irritation of alcoholic blood and high living.

Symptoms.—The common symptoms of both of these conditions, when present, leading to error in diagnosis or treatment are chiefly: 1. Possible coma. 2. Paralysis. 3. Sudden death.

The distinctive symptoms between the two diseases, provided the attack is not immediately fatal, are best grouped as a differential diagnosis.

Apoplexy.

The attack, if serious, but not immediately fatal, is accompanied by coma and insensibility.

The indications of cerebral compression are present, as shown by the following symptoms:

The breathing is stertorous.

The face is flushed.

The pulse is full and slow.

The pupils are irregular.

No aphasia exists (as a rule).

The paralysis is slow in improvement.

The arteries are often felt to be atheromatous.

No cardiac lesion exists if the attack be uncomplicated.

A history of previous high living is usually present.

Embolism.

Under the same conditions consciousness is liable to be present during the attack.

The indications of cerebral anemia exist, as shown by the following symptoms:

The respirations are normal (as a rule).

The face is pale.

The pulse is rapid and feeble.

The pupils are uniform.

Aphasia is diagnostic.

The paralysis usually improves slightly within twenty-four hours.

The arteries are normal.

The aortic and mitral valves are usually found to be abnormal.

A history of previous rheumatism and endocardial inflammation is generally detected.

Both may have been preceded by similar attacks; but in each a recurrence is liable to take place, even should no previous history of a former attack exist.

Treatment.—In severe cases of either of these conditions little can be done to relieve, save a symptomatic line of treatment. Cold to the head, venesection, and catharsis are usually employed in apoplexy, but more for the object of preventing further escape of blood than as curative measures. In embolism some improvement usually appears within twenty-four hours, without treatment, from a supply of blood, through the collateral circulation; but the prognosis depends greatly on the situation of the embolus, its size, and its character. Fatty degeneration often re-

moves the foreign body before degeneration of the brain occurs; and, in these cases, complete recovery may result.

We come now to the SECOND CLASS of causes of death, viz., "causes affecting the nervous system."

SHOCK AND COLLAPSE.

By the term "shock" is meant a state of body dependent upon a sudden or violent impression affecting some portion of the nervous system, and, *through a nerve-centre*, acting upon the heart. By "collapse," a state of *extreme shock* verging upon dissolution, but not resulting in immediate death. Life may be destroyed without pathological lesions, as in cases of sudden or violent blows upon the epigastrium, and as a result of powerful mental emotion; but these cases are uncommon, and are, as a rule, always preceded by one of the above-named conditions. It is to these two conditions (viz., shock and collapse), therefore, that I direct your attention as a cause of death during surgical operations.

Syncope is not to be confounded with collapse or shock, since it differs from them in three respects: 1. In its duration and degree. 2. In the mental condition of the patient and the acute sensibility of the special senses. 3. In its more rapid *crisis*, but less profound effects.

Collapse is divided, according to its symptoms, into three stages: 1. Stage of shock. 2. Stage of reaction. 3. Stage of excessive reaction.

This third stage has been described by Hunter as the "stage of irritability;" by some as the "stage of delirium;" by others as the "stage of inflammation;" and by Travers as the "stage of prostration with excitement."

Etiology.—The causes of collapse may be classified into

1st. *Injuries* involving a large amount of tissue or nerve trunks: Lacerations, burns, injuries to joints, injuries to organs, especially liver, testicle.

2d. *Poisons*, depressing the nervous condition: Tobacco, aconite, drastic cathartics, etc.

3d. *Shock to nerve-centres* resulting from blow on epigastrium, lightning, concussion of brain, mental emotions, excessive pain, sudden cessation of pain, cold douche.

4th. *Sudden and severe hemorrhage*.

5th. *Exhaustion*, as produced by excessive fatigue, excessive privation from food, prolonged suppuration, prolonged mental excitement.

There are also certain conditions which are predisposing towards collapse, such as "old age," "debility," prolonged anxiety, excessive fear, etc.

Pathology.—In fatal cases of collapse the pathological conditions are confined to the heart and circulatory apparatus; thus the heart cavities are usually found to be markedly distended; the right heart is engorged with blood; marked engorgements of the great veins and cavae exist; and imperfect coagulation of blood is present in the heart and large vessels.

Symptoms.—The symptoms of collapse differ with the various stages, and will be therefore separately enumerated.

The symptoms of the first stage (stage of *shock*) are: 1. Pallor of the whole surface of the body. 2. Bloodless lips. 3. A clammy moisture of the skin with drops of sweat on the forehead. 4. A countenance dull, shrunken, and contracted. 5. An eye deficient in lustre, and partially covered with the drooping lid. 6. Dilated nostrils. 7. A temperature depressed below normal. 8. Extreme muscular debility. 9. A pulse frequent and irregular, or feeble and often impercepti-

ble. 10. Respirations short and feeble, or sometimes panting or gasping. 11. And finally, incomplete coma associated with nausea, hiccup, vertigo, dimness of vision, and painfully acute hearing.

The symptoms of the second stage (stage of *reaction*) are: 1. Slow and gradual improvement in appearance of the face. 2. Improvement in the rhythm and the force of pulse. 3. Fuller respirations. 4. Sighing. 5. Return of power of deglutition. 6. Increase of temperature. 7. Change in the position of the patient from a supine posture (sign of debility) to the side. 8. Slight febrile action, followed by sleep, and often by convalescence.

This stage of reaction may not be uniformly progressive, but may be characterized by relapses and successive reactions. The prognosis depends on the rapidity of the stage of reaction.

The symptoms of the third stage, if present, are: 1. Dry heat of skin. 2. A rapid and bounding pulse, but always compressible. 3. Hurried but imperfect respiration. 4. Tremulous tongue. 5. Great thirst. 6. Restlessness and jactation. 7. Delirium (most marked at night). 8. Muscular twitchings.

As exhaustion comes on, the skin again becomes cold and clammy; the face pale and haggard; the pulse very rapid and fluttering; subsultus, coma, or convulsions usually precede death; death.

Treatment.—The treatment of collapse should be modified in two sets of cases. 1. Those associated with hemorrhage. 2. Those without hemorrhage.

In the first class of cases Travers makes the following suggestions as a summary of treatment. 1. Maintain a horizontal position. 2. Give brandy in *moderation* per stomach and rectum. 3. Apply hot flannels to the epigastrium and the extremities. 4. Early nourishment must be given following the use of stimulants. 5. The head should be kept cool to avoid mental excitement. 6. Early sleep, through opiates, should be obtained. Give hyoscyamus if opium fails to produce sleep. 7. If reaction be delayed beyond twelve hours, increase the stimulants, apply mustard to the epigastrium, and induce sleep through large doses of opiates.

C. T. Hunter, of Philadelphia, recommends placing patient in a bath at 98° and raising it rapidly to 110°. The respirations have thus been known to fall from 36 to 20.

Young recommends, in cases demanding serious operations, confinement of the patient, for one week previous to the operation, to the *same position* as required for the first week following the operation, in order to prevent the confinement becoming an exciting cause of shock.

In those cases not associated with hemorrhage the following treatment is suggested: 1. Opening of the external jugular vein, if distended, is advised, to relieve the distention of the right heart, since in experiments on animals this treatment has been proved efficacious. 2. Maintain the normal temperature of body if possible to do so. 3. Diffusible stimulants should be given with great care to avoid excessive reaction. 4. Artificial respiration should be used when demanded.

We now reach the third class of causes of death, viz.: "Causes affecting the blood."

ANÆSTHETICS.

The list of anæsthetics to-day in general surgical use comprises chloroform, sulphuric ether, nitrous oxide gas, bichloride of methylene, tetra chloride of carbon.

Preparations of amyl, although anæsthetics, are not used as general surgical aids, and the various prep-

arations employed for local anæsthesia do not enter into the cause of death, and are therefore omitted.

Effects of Inhalation.—All anæsthetics by inhalation follow, to a greater or less degree, a resemblance to the symptoms of chloroform and sulphuric ether.

In the first stage (that of *facial and laryngeal irritation*) there is developed: 1. An increased flow of mucus. 2. A desire for air and sense of suffocation. 3. Frequent reflex acts of swallowing. 4. Coughing. 5. Struggles of the patient.

In the second stage (that of *general exhilaration*) we notice an increased pulse, increased respirations, flushing of the face, laughing, shouting, crying, and other symptoms of intoxication. The taste and smell are lost, and analgesia is present.

This stage is most prominent in the mercurial and hysterical temperaments.

In the third stage (the *tetanic or convulsive stage*), the muscles become rigid, the face cyanosed, the breathing arrested or stertorous, oposthotonos exists, and the eyes are staring and open.

This stage is least marked in women, and the feeble or debilitated.

In the fourth stage (the stage of *coma*) the surface becomes cool, diaphoresis is present, the countenance is placid, the pupils are normal or slightly contracted, the respirations become shallow but easy, and the pulse somewhat slower than normal.

CAUSES OF DEATH.

The causes of death in anæsthetics are: 1. Syncopal apnoea. 2. Epileptiform syncope. 3. Paralysis of respiratory muscles. 4. Cardiac paralysis. 5. Shock. 6. Coagulation of blood in the pulmonary capillaries. 7. Direct anæsthesia of lung tissue.

(A) **SYNCOPAL APNŒA** (so called by Richardson).—This cause of death occurs during the first stage of chloroform, *soon after administration of the anæsthetic is commenced*. It is explained by Richardson as due to "irritation of the peripheral nervous system associated with excess of carbonic acid in blood and arrest of heart's action," and by Bartholow, as due "to direct paralysis of the cardiac ganglia from contact with chloroform in the blood. These ganglia being in an abnormal state of susceptibility from causes not now understood."

(B) **EPILEPTIFORM SYNCOPÉ.**—This occurs during the *third or tetanic stage*. It is produced by tetanic fixation of the respiratory muscles, and interference with the pulmonary circulation, resulting in venous engorgement of right heart. Respiration in this form of death ceases before the heart's action is arrested.

(C) **PARALYSIS OF THE RESPIRATORY MUSCLES.**—This occurs during the stage of *complete muscular relaxation*. The heart beats for some seconds after respiration has ceased.

(D) **"CARDIAC PARALYSIS."**—This occurs during the stage of *complete insensibility* and analgesia. It is produced by paralysis of the cardiac motor ganglia. Respiration may continue for a short time after heart has ceased to act. J. Paget's case, 1857. Respiration seven minutes after heart failure.

(E) **SHOCK.**—This cause of death, when present, is induced by and combined with the respiratory or cardiac depression existing as the result of the anæsthetic. This may occur either in the early or late stages.

Faure's* theory attributes death from chloroform in all cases to coagulated or *thickened blood in pulmonary*

* Faure asserts that chloroform is never absorbed, but is always local in its action.

capillaries, from the direct action of too strong chloroform vapor.

Madden's* theory attributes death from chloroform to direct *anæsthesia of the lung tissue*, and therefore arrest of respiration and asphyxia.

The conditions rendering anæsthetics dangerous are: 1. Fatty degeneration of heart (a prominent contraindication). 2. Previous alcoholic history. 3. Brain tumors and degenerations. 4. Respiratory obstruction from swollen epiglottis, enlarged tonsils, œdema glottidis, laryngeal paralysis, thoracic tumors or aneurism. 5. Emphysema and obstructed pulse circulation, from engorgement of right heart, and deficient heart-power. 6. Valvular lesions, provided compensatory hypertrophy is not *proportionately* developed. 7. Incomplete anæsthesia during *painful* surgical procedures, causing death from shock, as the result of peripheral irritation.

Muscular debility and weakness from exhaustion, if otherwise uncomplicated, prove rather aids to anæsthesia than contraindications.

PREVENTIVE MEASURES AGAINST DANGER.—These may be comprised in the following rules: 1. A thorough examination—for sources of danger should always be made previous to administration of an anæsthetic. 2. Never administer on a full stomach, as anæsthesia of the glottis prevents expulsion of vomited matter from the larynx, in case it enters by regurgitation. 3. Never administer after long *fasting*, as absence of nutrition may tend toward cardiac paralysis. 4. Give one or two ounces of whiskey before administration. 5. Nussbaum (Berlin, 1868) suggests that a hypodermic dose of morphia be given before the administration of the anæsthetic; the results which he claims being (1) that it prolongs the anæsthesia, and (2) that less anæsthetic is required.† 6. Avoid all excitement to the patient from fear, sight of instruments, too many spectators, etc., all of which tend to induce shock. 7. Have appliances for resuscitation at hand, and plenty of fresh air during the administration of the anæsthetic. 8. In chloroform, mix only three and a half per cent. of the vapor with air to ensure safety (Simpson's rule being 3 ss. on a handkerchief). The specific gravity of chloroform being four times heavier than that of air, a saturated handkerchief, if held close to the mouth, will displace the air and give a dangerously large percentage of chloroform vapor. 9. In ether, the respirations alone need be watched during its administration. In chloroform, however, the respirations and the pulse need both to be carefully noted.

TREATMENT OF DANGEROUS SYMPTOMS.—1. Nélaton's plan suggests immediate inversion of the patient in case of heart failure. 2. Inhalation of gtt. v. -x. of nitrite of amyl may be given early, the tongue being drawn out to lift the epiglottis. 3. Stimulation, in case respiration is affected, but not entirely suspended, should be employed by means of either ammonia to the nostril, cold douche, or injection of ammonia into the veins. 4. Galvanism, if employed, may be administered by the following methods: (a) Herapath's method (*Lancet*, 1852). The positive pole is placed to the nostril and the negative pole over the diaphragm. A reflex action is thus excited between the fifth pair and the pneumogastric. This is used chiefly in case of respiratory failure. (b) Duchenne's method. The poles are placed directly over both phrenic nerves, on a line with the fourth cervical ver-

tebra. This also serves to stimulate respirations. (c) Packard's method (*Amer. Jour. Med. Science*, 1865). One pole is placed over the upper dorsal spinous process, and the other pole over the apex of the heart. By this method cardiac contraction is induced. 5. Tracheotomy and inflation of the lungs by a catheter passed down the trachea, as suggested by Langenbeck (Berlin, 1859), may be resorted to in desperate cases. 6. Finally, acupuncture of the heart has been suggested, but as yet is not well verified as a safe procedure, nor can it conscientiously be recommended.

CASE OF CARCINOMA OF THE LIVER, WITH REMARKS UPON THE DIAGNOSIS AND TREATMENT OF THE DISEASE.

By LOUIS STARR, M.D.,

PHYSICIAN TO THE EPISCOPAL HOSPITAL, ETC., PHILA.

THOMAS —*, æt. forty-nine years, a laborer, was admitted to the medical ward of the Episcopal Hospital on October 26th, 1878. His family history, so far as he knew, was healthy. He had never had syphilis, and had always been moderately temperate in his habits. With the exception of an attack of pneumonia, in early life, he had been little troubled with illness until 1872, when he began to suffer from occasional paroxysms of dyspnea and from dyspepsia and constipation. He had never felt any anxiety about his health, however, until June, 1878. At this date he noticed that the ingestion of food gave rise to pain in the epigastrium, and was followed, after an interval of about five minutes, by vomiting, the material ejected consisting of the recently swallowed food, mixed with mucus and sometimes containing blood. There was also anorexia, constipation, failure in flesh and strength, and commencing jaundice. After the lapse of a month the vomiting became much less frequent and troublesome; the other symptoms, on the contrary, gradually increased in severity up to the middle of September; subsequently there was more vomiting, and his general condition grew rapidly worse. Ten days before coming to the hospital he observed, for the first time, that there was an abdominal tumor. When admitted, he was much emaciated and very weak; his face wore an anxious expression; his skin felt harsh and dry; and there was marked, though not intense, jaundice of both the skin and conjunctivæ, and slight yellowness of the mucous membrane of the mouth as well as of the hair, which was naturally brown in color. His feet and ankles were somewhat œdematous. His tongue was dry, smooth, and lightly coated in the centre; he had considerable thirst, very little desire for food, and when he took anything into his stomach it was almost immediately rejected again. He complained, too, of hiccup, of distributed soreness of the abdomen, and of constant sharp pain in the centre of the epigastric region, at times extending through toward the back. His bowels operated two or three times in every twenty-four hours, the motions being partly formed slate-colored, with a tinge of green, and containing a small quantity of blood.

On making an examination of the abdomen, the liver was found to be greatly enlarged, occupying the epigastrium, the right hypochondrium, and the greater part of the umbilical and right lumbar regions.

* Tenn. Med. Society, April, 1858.

† Med. Times and Gazette, 1864: Report of Versailles Med. Society.

* This history was compiled from the ward notes of the resident physician, Dr. J. M. Anders.

These regions, together with the xiphoid cartilage and the right costal border, were thrust outward and to the right, and the umbilicus was displaced about one inch to the right of the median line. The edges of both lobes of the liver could be distinctly traced by the fingers, and were thick, firm, and nodulated, while over the anterior surface several large, and many small, hard nodules could be perceived through the abdominal parietes. The movement of these nodules, as they rose and fell synchronously with the respiratory acts, produced a peculiar wavy appearance at the epigastrium. There was dulness on percussion and tenderness on palpation over the accessible portion of the organ, the tenderness being slight, except over the left lobe, where even light pressure caused considerable pain, and gave rise to eructations of odorless gas and to prolonged hiccough. The upper border of the liver, as determined by percussion, was in the normal position. The pulsations of the abdominal aorta could be distinctly felt, and in contact with the left side of the vessel, just below the margin of the left lobe of the liver, a firm, convex mass, as large as a hen's egg, was discovered. The intestines occupied the left side and the lower part of the abdomen; here there was resonance on percussion and gurgling on palpation; no ascites could be detected. The inguinal lymphatic glands were somewhat enlarged and the abdominal veins moderately distended. There was no cough or difficulty in breathing, and a careful exploration of the thorax revealed nothing but feebleness of the cardiac sounds and a few old pleuritic friction sounds over the lower part of the left chest posteriorly. The urine was voided freely and in proper quantity; was orange brown in color, neutral in reaction; had a specific gravity of 1021; contained a quantity of bile coloring-matter, about the normal amount of indican, and was entirely free from albumen. Nothing abnormal was detected on microscopic examination.

The patient was put to bed and ordered a fluid-ounce of milk, with half a fluid-ounce of lime-water, every hour throughout the day and when awake at night, together with three fluid-ounces of sherry wine and gr. xvj. of sulphate of cinchonidia, in divided doses, during the day.

For the first four days after admission (Oct. 26th-30th) there was a noticeable improvement in his condition. He was more cheerful; was able to sleep better; suffered less from pain, and retained all his allowance of milk and lime-water, except a few doses on the 27th and 28th, which were vomited soon after being taken, the milk being partially curdled and mixed with a small quantity of greenish liquid. Still he had prolonged attacks of hiccough and frequent eructations of gas, and his bowels were too loose, some of the motions being attended with straining, and consisting of little more than blood-stained mucus.

On the 30th a movable, rather firm tumor, three inches in length and two inches in width, was detected above the left iliac region. As there had been no more vomiting, the milk was increased to one and a half fluid-ounces every hour; and, as the cinchonidia appeared to cause slight nausea, it was discontinued, and a powder, consisting of gr. v. of bicarbonate of sodium and gr. x. of saccharated pepsin, given in milk four times daily.

Up to October 31st the morning temperature, taken in the axilla, had ranged about 96.5° F., and the evening, 99°; while the pulse, which was always feeble, varied from 84 to 100 beats per minute in the morning and from 96 to 120 in the evening.

On Nov. 1st the morning temperature was 94.5°; the patient's skin felt cold; his face was haggard; there was great weakness, increased abdominal pain, and a feeble, irregular pulse scarcely perceptible in the left arm, which was considerably swollen, and pitted on pressure. The bowels were more frequently moved, and the passages more clay-colored. There was no vomiting, but obstinate hiccough and great thirst. The milk was increased to forty-eight fluid-ounces and the wine to six fluid-ounces per diem, and gr. x. of carbonate of ammonium were administered every three hours. During the night of the 1st he had several large, lumpy stools, and on examining the abdomen next day no trace of the small, movable tumor could be found.

On Nov. 2d, 3d, and 4th his condition was unchanged; the temperature at each observation (8 A.M. and 6 P.M. daily) was 95.5°, and the pulse was very weak, counting from 96 to 108. On the succeeding three days, although there was no alteration in the annoying symptoms—the pain, hiccough, and diarrhoea—there was some gain in strength, a rise in the temperature to the normal line, and a stronger, though more frequent pulse; the swelling of the left arm subsided, and a feeble pulse could be felt in the radial artery at the wrist.

On the night of the 7th he became very much prostrated, and death occurred at 9 A.M. on the 8th, being preceded by a short period of semi-coma. The temperature an hour before death was 95.5° and the pulse 128.

At the *post-mortem* examination, made twenty-six hours after death, the liver was found to be greatly enlarged, and was thickly studded with hard white nodules. These nodules were slightly elevated, round or oval in shape, and varied greatly in size, some measuring scarcely an eighth of an inch, others more than an inch in diameter; a few of the larger were umbilicated. The hepatic tissue was dark-green in color. The gall-bladder, the hepatic duct with its two branches, and the ductus communis choledochus, up to a short distance from its point of entrance into the duodenum, were greatly distended. In the latter position the common duct was partly occluded by pressure from the head of the pancreas. The head of the pancreas was tightly adherent to the duodenum, and rested upon and extended downward to the left of the abdominal aorta; together with the rest of the gland, it was enlarged, nodulated, and much more compact in structure than usual. The celiac glands were greatly enlarged and hardened. There was a chronic ulcer upon the lesser curvature of the stomach, and also in the duodenum over the seat of the attachment of the pancreas. The rest of the abdominal viscera were healthy. There was a small quantity of fluid in the peritoneal cavity. There was no marked thoracic lesion, other than extensive pleuritic adhesions on the left side. The tissues throughout the body were somewhat stained with bile. On a microscopic examination, by Dr. Simes, the nodules in the liver, the celiac glands, and the head of the pancreas presented an arrangement of histological elements characteristic of cylindrical epithelioma. The same appearances were also observed in a thin section taken from the margin of the duodenal ulcer. The conclusion, therefore, was that the lesions of the liver, pancreas, and lymphatic glands were secondary to that of the mucous membrane of the duodenum.

Remarks.—The diagnosis of carcinoma of the liver must depend chiefly upon the signs obtained by physical exploration of the abdomen, since the general

symptoms, though they may furnish a clew to the lesion, are far from being characteristic of it.

The general symptoms commonly ascribed to the disease, are, in the beginning, anorexia, flatulence, constipation, distention, and pain at the epigastrium, or right hypochondrium and in the right shoulder, and, later, jaundice and ascites, together with the development of the "cancerous cachexia." Occasionally also there is œdema of the feet and pyrexia.

Of these symptoms, the situation of the pain and the jaundice would direct attention to the liver, but would not indicate the nature of its disease, for the first symptom is common to many hepatic affections; and the second, while it is more frequently present in cancer than in any other organic disease of the viscus, is so often absent that it is of little value as a diagnostic symptom. In fact, jaundice is absent in the majority of instances; thus of 91 cases mentioned by Frerichs, death occurred in 52 without this symptom having been noticed. The icterus, when present, is, in the main, caused by pressure upon the bile-ducts. It consequently varies in intensity according to the degree of obstruction, and, when once developed, never disappears—differing, in this respect, from jaundice, consequent upon catarrh of the ducts or upon obstruction by gall-stones. In this form of icterus, too, the urine, in addition to bile coloring-matter, sometimes contains an excess of uroxyanthin or indican; but this excess cannot be considered as pathognomonic of carcinoma of the liver, as it has been observed in other, very diverse, affections.

Of the other symptoms, complaints of flatulence, distention at the epigastrium, and constipation point to the stomach and intestines. The existence of ascites would simply lead to an examination of the liver, without affording any definite information; and the presence of the "cancerous cachexia" proves nothing except grave interference with the function of nutrition. Again, as hepatic cancer is in the majority of cases a secondary affection, and as it at times gives rise to other lesions—for example, chronic peritonitis or pleuritis—the difficulty of making the diagnosis from rational symptoms is further increased, the attention being diverted to the symptoms of the primary disease on the one hand, or the consecutive disease on the other. The rational symptoms then being, at most, merely suggestive, the main reliance must be placed upon physical exploration of the abdomen.

Such an examination usually shows enlargement of the liver, extending principally in a downward direction, and being frequently of great extent. In the latter case the lower ribs on the right side are pushed upward and outward, and there is a visible tumor in the abdomen having the outline of the liver. There is dullness, increased resistance and tenderness on percussion over the enlarged organ, and on palpation the surface is uneven, and the edges, which can be readily traced, are indurated, thickened, and irregular. This irregularity of the surface and edges, the most pathognomonic of the physical signs, is due to the presence of the cancerous nodules, which vary considerably in size and number, but are always slightly elevated and flattened on the surface, not uncommonly umbilicated, and generally firm and resistant. They are, at times, visible through the abdominal wall, and may give rise to friction-sounds and fremitus, especially on forced breathing. An important negative sign is the rarity of an increase in the area of splenic dullness.

With these physical signs the diagnosis of cancer of the liver is quite easy. In some very exceptional

instances, however, when the cancer is infiltrated, or when a few small cancerous nodules are formed deep in the tissue of the liver, there is only slight enlargement and none of the characteristic irregularities of contour; here no positive diagnosis can be made until after an autopsy. In these cases, too, the difficulty is apt to be augmented by one or more of the rational symptoms being ill-developed or altogether absent.

The disease which is most liable to be confounded with hepatic cancer is syphilitic hepatitis when, in consequence of the formation of cicatrices, the organ has become uneven and lobulated. The clinical history, the presence of other syphilitic lesions, the slight degree of enlargement, and the absence of induration, serve to distinguish the syphilitic from the cancerous affection.

In the case just detailed, the physical signs were so well developed that the diagnosis was easy, even without the confirmation obtained from the patient's age, the absence of syphilitic history, and the existence of the general cachexia and jaundice. At the same time the detection of the small tumor overlying the aorta and the undue prominence of the gastric and intestinal symptoms indicated that the condition was a complicated one. The nature of the complications was never definitely determined during life; but in the light of the post-mortem examination there is a ready explanation, the tumor being referable to the enlarged pancreas, and the digestive symptoms to the gastric and duodenal ulcers. The rather marked jaundice was supposed to depend upon incomplete obstruction of the bile-duct by a cancerous nodule developed in the fissure of the liver, and this supposition was the natural one, as there was nothing to point to the actual, though far less likely condition, partial occlusion of the common duct by pressure from the head of the pancreas. The fact of the obstruction being incomplete was proved by the presence of bile coloring matter in the evacuation from the bowels.

Among other symptoms, the persistent hiccough and the low temperature are worthy of note. Singultus occurs not infrequently in malignant diseases, especially in those in which there is a tendency to death from asthenia. In such diseases, also, the temperature is frequently low, sometimes falling even below the normal line. Low temperature is almost the rule in carcinoma of the liver, though there is sometimes pyrexia; in these rare cases the elevation of temperature is only moderately high, is commonly of short duration, and is probably due to some inflammatory complication.

In treating cancer of the liver, all that can be done is to meet the troublesome and dangerous symptoms as they arise, and maintain the patient's strength by the use of tonics, stimulants, and proper food. The employment of a light but nutritious diet, into which milk should enter largely as an ingredient, will do much to moderate the digestive derangements and keep up the tone of the system. When there is gastric irritability and an antacid is indicated, lime-water may be added to the milk, and when the bowels are constipated mild laxatives should be administered. Of tonics the best is cinchona, or one of its preparations. If there is much pain, fomentations, cataplasms, and narcotic liniments should be resorted to; and if there is excessive ascites, the trocar is to be preferred to the use of drastic purgatives or hydragogue diuretics.

The great principle of the treatment is to avoid every measure of a debilitating nature, the practical value of an early and accurate diagnosis being to justify the plan of non-meddlesome medication.

Progress of Medical Science.

CONGENITAL ABSENCE OF THE SPLEEN.—Drs. Koch and Wachsmuth, of Altona, report the following case: A large, strongly-built, muscular man, forty-nine years of age, and a tinker by trade, was admitted into the hospital in Altona on December 4th, and died on the 6th. When admitted, he was suffering from high fever and diarrhoea, and presented an indistinct roseolar eruption, but the position of the spleen could not be made out either by palpation or percussion. Physical examination of the chest revealed bronchopneumonia of the right side. At the autopsy the spleen was found to be entirely wanting, and there was no blood-vessel corresponding to the *arteria lienalis*. All the other viscera were found in their normal positions.—*Berliner klin. Wochen.*, Feb. 10th, 1879.

A CASE IN WHICH THE OPERATION OF LAPAROTOMY WAS PERFORMED THREE TIMES IN THREE YEARS.—Dr. Baumgärtner, of Baden-Baden, reports the following case, which is unique, both because of the number of the operations performed within a brief period of time, and because of the peculiar nature of the indications which led to the last two laparotomies: The patient, a woman, thirty-three years of age, had suffered for four years from a tumor of the left ovary, which had attained a very large size. The tumor was removed on Sept. 28th, 1875. The pedicle was secured in the lower angle of the abdominal wound by a Wells's clamp; and, for the purposes of drainage, Douglas's cul-de-sac was punctured with a trocar, and a drainage-tube carried from the vagina through the opening and out through the abdominal wound. On the fifteenth day the clamp was removed, and the centre of the pedicle at once retracted, leaving a funnel-shaped depression. On the twenty-first day the menses set in, and lasted for five days without any suffering. During this period, and for three days afterward, a bloody discharge escaped from the exuberant granulations on the end of the pedicle. On the thirty-fourth day the wound had entirely healed and the patient left her bed, and a few weeks later returned to work. The menses were subsequently regular and entirely painless, but at each period a small vesicle formed on the spot where the pedicle was involved in the cicatrix. This vesicle ruptured on the second day, discharged blood for four days, and then rapidly healed.

The patient remained well until December, 1876, when, while in the act of lifting a pail of water, she suddenly experienced a violent pain in the pedicle. The pain persisted, and grew gradually worse, and toward the end of February became so severe that the patient was unable to move herself in bed. Micturition was at first normal, but soon became extremely painful. Examination under narcosis revealed no new growth from the pedicle, and no swelling of any sort. The pedicle could be felt as a tense cord. At the urgent request of the patient a second operation was undertaken on March 8d, 1877. The old cicatrix was laid open, and a portion of the omentum, which was adherent to it, was cut through. The pedicle was found to be adherent to the posterior wall and fundus of the bladder, to the omentum, and to some loops of intestine. These adhesions, however, were easily separated. To check the bleeding from the divided omentum it was necessary to use Paquelin's cautery and tie two small arteries. The cauterized

portion of the omentum was brought out through the abdominal wound, and secured there by sutures, and, as a consequence, that portion of the wound did not unite by first intention. The wound finally healed completely, and the patient was again able to go about without pain. Although the pedicle had been completely separated from its parietal connections, and had retracted into the abdomen, a small vesicle formed on the cicatrix at each subsequent menstrual epoch, and discharged blood as long as the period continued.

In January, 1878, the patient again began to complain of severe pain, this time in the region of the right ovary. The pain soon became constant, was markedly increased at each menstrual epoch, and was greatly aggravated by pressure on the abdomen. Up to July the repeated examinations gave negative results; but in that month an examination under an anæsthetic revealed an elongated swelling, about the thickness of a thumb, lying close to the somewhat swollen right ovary. The diagnosis of inflammation of the ovary and tube was then made. As the pain was constantly increasing in severity, and the patient had fever every evening, and was visibly emaciating, a third laparotomy was performed on Aug. 19th, 1878. The incision was made in the middle line, instead of laterally, because a ventral hernia had formed in the lower third of the cicatrix after the second operation. For this purpose the old cicatrix was cut out by a pear-shaped incision, with the base directed downward. After the separation of some slight adhesions, the slightly enlarged ovary, and the tensely distended tube, which was of a deep yellow color, were brought into view, then secured by a double ligature of carbolized silk, and cut off. The uterus, with the stump of the tube, was allowed to fall back into the abdomen, and the wound was closed with silver sutures. The tension in the lips of the wound was removed by a double silver suture introduced at a distance of 4 cms. from the wound, and by an ingenious arrangement of adhesive plaster. The operation was performed under the carbolic spray. On the following morning the patient was entirely free from the pains previously experienced, and suffered only from a sensation of burning in the wound. On the sixteenth day she was able to leave her bed. The ovary was not diseased. The extremity of the Fallopian tube was firmly attached to the ovary, and was converted into a sac as thick as a thumb, filled with thick, cheesy pus. The walls of the sac were in some places exceedingly thin, and in all probability a perforation would very soon have taken place.—*Berliner klin. Wochen.*, February 8d, 1879.

THE BONY MARROW AS A HÆMATOPOËTIC ORGAN.

—M. Ponchet, as the result of numerous experiments, investigations, and comparisons, has come to the conclusion that the marrow of the bone is not, as has been claimed, a hæmatopoëtic organ. He states that the generally received opinion that the hæmaglobine belongs solely to the blood-globules is incorrect; it is also found in connection with several other elements. In 1877 he demonstrated the fact that the leucocytes of fish fix hæmaglobine, and since that epoch this has been found to hold true of the leucocytes of the dog, horse, etc. It is also true of some elements of the bony marrow, certain cells of which, when in a state of degeneration, also fix hæmaglobine. M. Ponchet considers it most probable that there is no hæmatopoëtic organ, the red globules being produced either by a sort of spontaneous generation, or by development from leucocytes.—*La Tribune Médicale*, March 30th, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 5, 1879.

ENGLISH MEDICAL STUDENTS.

WE do not know who William Gilbert may be, but we do know that the *Fortnightly Review* is a respectable English journal. Mr. William Gilbert, in the *Fortnightly Review* for January, 1879, after an eulogium upon the character of the medical men of England, makes the following, to us, remarkable statement: "And yet, during the period of their medical education, there is, if police and newspaper reports are to be trusted, no class or profession of young men who come more frequently into collision with the authorities, or exhibit more frequently instances of ungentlemanly behavior. It is computed that no fewer than four hundred out of the two thousand medical students in London, have come directly or indirectly under the notice of the police during the year." We have said that we consider this a remarkable statement. Our English friends are not unwilling to criticise, sometimes unfavorably, American medical men, American medical colleges, and American medical students; but certainly they have never said anything which reflects so severely upon the character of the aspirants for a medical degree as has this writer in the journal from which we have quoted. Whatever may be said of American medical students, it cannot be truthfully stated that they are more frequently the subject of police surveillance than other classes of people. Indeed, we doubt very much if, in the city of New York, during the past year, at a time when we had nearly two thousand medical students, there were twenty-five who ever came under police restriction. It has been thought, in this country, that English medical men were recruited from the ranks of the respectable middle classes—for the moment assuming, with the nomenclature of the English, that the nobility and the gentry constitute the upper classes. But, if the statement we have quoted is reliable, we shall be obliged to think that they are taken from classes who do not

know how to behave so as to prevent interference with their actions by the protectors of the public peace. What can be the cause of this most unbecoming conduct on the part of English medical students? Our writer, strange as it may seem, finds the origin in the malorganization of English medical schools. He says that the fault appears to lie considerably more with their teachers and the bad organization, than in the natural manners and habits of the students themselves. This is an incomprehensible thing to us. We have often had occasion to criticise the management of medical schools in America, and we fear that we shall be obliged to do so upon future occasions; but it has never occurred to us that the bad organization and the bad system of our voluntary schools may make men the subjects of moral reprimand from police justices. We have seen no denial of Mr. Gilbert's statements. Perhaps our editorial brethren in London can explain the paragraphs which we have given our readers. Perhaps they can tell us why four hundred medical students are put under arrest every year in the city of London, and why it is that "more medical students have misconducted themselves in the metropolis during the last session than the students of all other professions put together." This writer complains that the medical schools of London are ill-arranged; that the funds collected for charitable purposes for the hospitals are used for the purpose of establishing medical schools; that every hospital in London thinks it should have an institution for the preparation of men for the profession of medicine; that patients, instead of being treated by gentlemen whose names appear as surgeons and assistant surgeons of the hospitals, are treated by students; and that one patient states that he never saw the same young gentleman two days in succession. Our writer also complains that the dissecting-rooms are in the hospital buildings; and that an odor is plainly discoverable in the wards by the patients. Surely we are not amiss in this country if we hold up our hands in holy horror at this state of things in the greatest city of the world. We have been disposed to think that the crudeness and the poverty in our own institutions were excuses at least for our defective arrangements; but no such charges as these can be truthfully made against the New York, and, we suppose, the Philadelphia and Boston medical colleges and hospitals. Students are not arrested in either of these cities by the hundred, and the odor from dissecting-rooms is not wafted into the wards of the hospitals, and patients are not treated by irresponsible medical students. We rejoice in the thought that in all these respects, assuming, as we have said before, that Mr. Gilbert is correct in his statements, the American medical schools are the superiors of those of London. The faults of our schools are the method of cramming students, which is often fatal to well-digested knowledge; the arrangement of all classes upon the same benches to hear the

same lectures; lack of primary examinations; and want of sufficiently thorough final examinations. But we may safely say that the medical students of America compare, as regards character, with any set of men in the country, and we may also affirm that our hospitals are attended by the gentlemen whose names are attached to their reports.

NEW HAMPSHIRE MEDICAL SOCIETY.

THE New Hampshire Medical Society held its annual meeting in the city of Concord, beginning June 17th. The usual number of papers were read and several important topics discussed. The President recommended that a State board of health be established, which is an important step in the direction of preventive medicine. Dr. Twitchell, we fear, unearthed a rough diamond when he laid at the door of rivalry the depreciating opinions so freely given of brother practitioners, and the Society, upon an important ethical question, placed itself in a position closely analogous to that occupied by the Frenchman who refused to save a fellow-being from drowning simply because he had not been introduced to him.

If the advice given with reference to testimony of physicians in court should be faithfully followed, it would at least afford an opportunity for witnesses to avoid bringing additional reproach upon the medical profession through designing lawyers. For genuine ability, the physicians and surgeons in America stand second to none in the world; but one radical defect, however, is that they are too tardy in bringing their claims forward for inspection. Dr. Hall now tells us that he suggested a surgical operation for the removal of biliary calculi more than a quarter of a century ago, and we hope the claim will be sustained for American surgery.

Reports of Societies.

THE NEW HAMPSHIRE MEDICAL SOCIETY.

Eighty-ninth Annual Meeting, held in the City of Concord, June 17th and 18th, 1879.

TUESDAY, JUNE 17TH—FIRST DAY—MORNING SESSION.

THE New Hampshire Medical Society convened at Union Hall, in the city of Concord, on Tuesday, June 17th, and was called to order by the President, Dr. A. F. Carr, of Goffstown.

Prayer was offered by the Chaplain, Rev. A. C. HARDY, of Concord, after which the usual committees were appointed by the President.

The Council reported that they had issued twenty-five licenses to practise medicine, and had received twenty-four applications for membership in the Society.

DELEGATES FROM OTHER STATE MEDICAL SOCIETIES.

DR. C. C. FIELD, of Leominster, Mass., and DR. M. H. CHANDLER, of Woodstock, Vt., were introduced as delegates.

THE PRESIDENT'S ADDRESS.

The President, DR. CARR, then delivered the Annual Address, in which he reviewed the history of medical science in New Hampshire. He urged strongly the necessity of establishing a State board of health. Preventive medicine was as applicable to the farm or rural home as to the closely packed dwellings. The address was closed by the history of a case of Colles' fracture, illustrated by drawings.

RABIES.

DR. C. C. ODLIN, of Exeter, related the history of a case of rabies under his care. The patient was a young man, *et.* 20 years, who had been bitten by a cat one year ago.

He then delivered an oration on

THE COUNTRY DOCTOR,

in which a graphic account of the responsibilities, the discouragements, and the requirements for success were given. He also argued that alcohol is a food.

MEDICAL ETHICS.

DR. G. B. TWITCHELL, of Keene, read an elaborate paper upon the above subject. Depreciating opinions of brother practitioners might sometimes be the consequence of thoughtlessness; but in the majority of instances they proceeded from a desire to crush a rival. He blamed, in severe terms, the practice of doctors magnifying themselves through "newspaper puffs;" also the practice of indorsing proprietary medicines with certificates. Such indorsements were the chief encouragement to quackery.

REPORT ON SURGERY.

DR. J. H. WHEELER, of Dover, gave a summary of his report on surgery, which embraced, for the most part, special references to the contributions to surgery made to the Society previous to the time when it began the annual publication of its transactions.

THE ANNUAL DINNER.

The Society and its guests, including Governor Head and Mayor Brown, of Concord, partook of the annual dinner at the Eagle Hotel, and it was an occasion for several happy post-prandial speeches.

FIRST DAY—AFTERNOON SESSION.

The Society was called to order at 4 P.M. by the President.

The first paper was read by DR. D. S. ADAMS, of Manchester, on

THE DIFFERENTIAL DIAGNOSIS OF MAMMARY TUMORS.

The paper was elaborate and scholarly.

DR. WHITTIER, of Portsmouth, then read a paper on

GYNECOLOGY.

The paper was well received by the Society.

MEDICAL HISTORY OF DOVER.

DR. J. R. HAM, of Dover, read a paper, which contained a brief history of the physicians of the city of Dover since the year 1628.

The paper gave rise to discussion on ethical questions; and the opinion prevailed "that only in cases of the direst extremity, when human life was in peril, and the demands of humanity irresistible, would it be justifiable in a regular physician to attend a case in

the hands of an irregular one, and then he should take the entire control and direction thereof."

OPINIONS AND TESTIMONY OF PHYSICIANS IN COURT.

DR. HILL, of Dover, read a paper on the above subject, in which several instances of legal injustice, begotten by immature medical testimony summarily exacted, were related. The earnest advice was given to refuse attendance in courts of law as witnesses unless opportunity had first been given to consider fully the subjects upon which testimony was required. That portion of the paper was warmly indorsed by the Society.

EVENING SESSION.

The evening session opened with the reading of a report on necrology, by DR. M. C. LATHROP, of Dover.

Obituary notices were read of Dr. Ezra Carter, of Concord; Dr. A. M. Winn, of Manchester; Dr. A. Tremblay, of Manchester; Dr. Timo. Kenrick, of Franklin; and Dr. T. H. Jewett, of Berwick, Me. (Hon. member.)

ORIGIN AND TREATMENT OF DIPHTHERIA.

DR. WATSON, of Groveland, read a paper on the above subject, in which he gave his experience in a severe epidemic occurring in May, 1878. Of 110 cases he had 11 deaths. His treatment consisted in strict attention to hygiene, the use of disinfectants, and the internal administration of the muriated tincture of iron in small doses, frequently repeated (four or five drops every half-hour), with a teaspoonful of a saturated solution of chlorate of potassa between. No local applications were made. The nourishment consisted chiefly of cold milk. Alcohol was used only in cases of extreme prostration. Paralysis, blindness, deafness, and anæmia were among the sequelæ; but total recovery ensued, with only a single exception.

The paper gave rise to a prolonged discussion, and there seemed to be a general concession that the disease was not a constitutional one, and that whatever constitutional conditions might favor it, they proceeded from such influences as malaria and exposure to impure effluvia.

The Society then adjourned to meet Wednesday at 8 A.M.

WEDNESDAY, JUNE 18TH—SECOND DAY—MORNING SESSION.

The Society was called to order at 8 A.M. by the President.

Delegates representing the Society in other medical societies made their reports, which were referred to the Committee on Publication.

SEMI-ANNUAL MEETING.

The semi-annual meeting will be held at Hanover.

TREASURER'S REPORT.

The Treasurer, DR. G. B. HOW, of Manchester, presented his report, which showed a funded capital of the Society of \$1,100.

CHOLECYSTOTOMY.

DR. HALL, of Dover, reported at length from the Maine State Medical Society. He described the Society as very flourishing and well ordered.

Incidentally, Dr. Hall claimed to have first suggested removal of biliary calculi by surgical operation, and that he brought the subject to the notice of Drs. Dixi

Crosby, and E. R. Peaslee over thirty years ago. The more recent claims made with reference to the origin of the operation, both in this country and in Europe, were not well founded.

OFFICERS FOR THE ENSUING YEAR.

The following gentlemen were elected officers for the ensuing year:

President.—Dr. T. J. W. Pray, of Dover.

Vice-President.—Dr. G. P. Conn, of Concord.

Secretary.—Dr. M. W. Russell, of Concord.

Treasurer.—Dr. Lyman B. How, of Manchester.

Executive Committee.—Drs. P. A. Stackpole, of Dover; J. W. Parsons, of Portsmouth; and A. H. Crosby, of Concord.

Anniversary Chairman.—Dr. F. A. Stillings, of Concord.

It was voted to increase the number of members of the Council from ten to twenty, and the Executive Committee was authorized to nominate and to appoint.

The President and Vice-President were introduced, and Dr. Pray returned thanks for the honor conferred upon him, and pledged his best efforts for the advancement of the interests of the Society.

After the adoption of resolutions on certain ethical relations, and a minute inquiry with reference to a case of hydrophobia occurring in Concord, the Society adjourned.

THE AMERICAN NEUROLOGICAL ASSOCIATION.

Fifth Annual Meeting, Held in the City of New York, June 18, 19, and 20, 1879.

WEDNESDAY, JUNE 18TH.—FIRST DAY—AFTERNOON SESSION.

The Association was called to order at 3 P.M., by the Secretary, DR. E. C. SEGUIN, of New York, who introduced the President, DR. F. T. MILES, of Baltimore, Md.

The President thanked the Association for the honor it had conferred upon him in his absence, and proceeded with the regular order of business.

On recommendation of the Council, the resignations of the following gentlemen were accepted: Dr. A. McLane Hamilton, Dr. D. B. St. John Roosa, and Dr. E. G. Loring, of New York; and Dr. Swan M. Burnett, of Washington, D. C.

The Treasurer's report was read, and showed a deficit of \$20.89, which the Treasurer stated would be covered when the annual dues were paid.

CANDIDATES FOR MEMBERSHIP.

DR. WILLIAM A. HAMMOND nominated Dr. W. J. Morton, of New York; and DR. E. C. SEGUIN nominated Dr. R. W. Amidon, of New York, for membership in the Association.

The essays of the candidates were referred to the Council for examination and report.

MISCELLANEOUS BUSINESS.

Under the head of miscellaneous business an amendment to the constitution was made providing for the transaction of all business by the Council subject to revision and approval by the Association.

An amendment was also offered by DR. GREY, of Brooklyn, providing for forfeiture of membership by non-attendance upon two consecutive meetings, unless satisfactory excuse could be rendered to the Council.

GUNSHOT-WOUND OF THE NECK—PARALYSIS OF THE CERVICAL SYMPATHETIC, FOLLOWED BY INSANITY,

was the title of a paper sent by DR. H. M. BANNISTER, of Chicago, Ill., and read by the Secretary.

The peculiarity of the case reported was, that it exhibited an apparent consequence of these injuries which had not been heretofore reported. The ball from a revolver entered upon the left side of the neck between two and three inches above the clavicular origin of the sterno-cleido-mastoid muscle, directly upon its anterior or inner margin, and, passing backward and a little downward, was lost in the tissues.

The leading symptoms were exophthalmos of the right eye; enophthalmos of the left eye; inequality of the pupils, the right being the largest; and a difference of 1° C. in the temperature of the two sides of the face. There was no tenderness upon pressure on any part of the neck, no ptosis, and no history of any lesion of important nerves save the sympathetic. It was as nearly a case of uncomplicated injury to the cervical sympathetic as he had seen recorded. The chief feature of interest was the connection the case had with mental disorder. There was no history of special neurotic tendency or symptoms of mental disorder antedating the reception of the wound, and no known cause of the insanity, except the wound. He had delusions, hallucinations, and occasionally signs of paralysis. The patient believed himself to be the bishop of Chicago, and thought he had power to make people tell their secrets.

DR. WILLIAM A. HAMMOND, of New York, remarked that Dr. Bannister had barely glanced at the most important part of his case. He had alluded to the fact that the man had *délire en grandeur*, but had avoided altogether association of disease of the sympathetic nerve with the general paralysis of the insane.

He was astonished that so good a scholar as Dr. Bannister should pass so lightly over such an important point. Lesion of the sympathetic existed in most, if not all cases of general paralysis of the insane. In this case whatever brain lesion there was must have been secondary to the injury of the sympathetic, and, therefore, possibly originated in the latter.

The case also went to confirm the opinion that the mind, whatever it was, existed in gray nervous matter wherever found, as well as in the brain itself.

DR. E. C. SEGUIN, of New York, remarked that before accepting the case as one of general paralysis of the insane, it would be desirable to scan the semeiology. The only symptom alluded to in the report that would lead to that supposition was the *délire en grandeur*. Dr. Bannister had not mentioned fibrillary movements of the muscles, peculiar speech, epileptiform attacks, or other varieties of ambitious notions, and simply stated that at one time the patient supposed he was bishop of Chicago, and that he also had power to make people reveal their secrets. But, leaving aside the psychical symptoms, Dr. Bannister had not mentioned the physical symptoms, which were never absent in general paralysis of the insane. He should admit that there was chronic cerebral hyperemia simply, but should be reluctant to classify the case with general paralysis of the insane.

DR. HAMMOND remarked, he was the first to call attention to the fact that, in general paralysis of the insane, physical symptoms manifested themselves before mental symptoms were developed. He had been told by a number of superintendents of insane asylums that they had never, rarely if ever, hardly ever, at least, seen a case of general paralysis of the insane in its earliest stages. Consequently, those who had

written upon the subject really knew nothing about the primary symptoms, which were physical.

DR. PUTNAM, of Boston, objected to the admission of the evidence regarding the patient's psychical condition, and could not see why this injury, situated in an important nerve tract, should act in any other way than through peripheral disorders.

DR. J. J. PUTNAM, of Boston, exhibited a new

RHEOSTAT,

made of German-silver wire, wound upon pegs, and having a sliding clasp, by means of which the intensity of the current could be steadily and conveniently increased, without liability of breaking the current. It was to be attached to the battery as an accessory circuit.

Dr. Putnam also made some remarks with reference to

BATTERIES OF HIGH AND LOW TENSION.

DR. HAMMOND, of New York, remarked that rheostats were really of no value whatever in the practice of medicine. The only practical apparatus was something which enabled us to bring a greater or smaller number of cells into the circuit at the same time, and then some temporary arrangement for making and breaking the circuit.

DR. PUTNAM allowed all that Dr. Hammond said was true; but the apparatus presented simply permitted of gradual increase in the intensity of the current, and small batteries lasted longer when all the cells were used than when only a part were employed.

DR. BEARD, of New York, remarked that at one time he experimented with all forms of rheostats, but after a while he got out of the way of using any. He thought that his experience was not at all exceptional. Theoretically, they sounded well, and appeared well when written out in full detail; but his experience had been that they possessed no special practical value. For him, pressure of the sponge made a very good rheostat.

DR. A. D. ROCKWELL, of New York, thought the rheostat suggested by Dr. Beard—namely, pressure upon the sponge—a rather slipshod method of management. Every movement of the sponge upon the body might cause a variation in the strength of the current, and for that reason it was difficult to give it exact control. He agreed that there was a vast amount of unnecessary refinement in apparatus employed for the application of electricity; but he had come to believe, at the same time, that some refinement was essential, therefore he employed the rheostat much more than formerly.

DR. MILES, of Baltimore, remarked that he used the water rheostat constantly, and found it a very great convenience, especially when using electricity on children.

DR. E. C. SEGUIN remarked that it was next to impossible to prevent interruption of the galvanic current by the wire apparatus sliding bar, and thereby avoid giving disagreeable shocks to the patient. He thought the chief advantage of a rheostat was the ability it gave to commence with a large number of cells, and gradually increase the current until sufficient sensation was produced—the sensation of the patient being the guide. An objection to the water rheostat was that while it answered very well up to a certain point, where the metallic points were within a short distance of each other, it was almost impossible to bring them nearer without bringing them together, and thus give rise to a shock. The attachment of a micrometer screw and guard would be advantageous.

DR. J. J. MASON remarked that, for a mild current,

a metallic rheostat was preferable to a water rheostat, because of the great resistance offered to the primary current by the water, consequently a diminution in the intensity of the current. Anything like an improved rheostat he regarded as important.

The Association then adjourned, to meet at 8.30 P.M.

FIRST DAY.—EVENING SESSION.

The Society being called to order by the President, a paper was read by DR. GEORGE M. BEARD, of New York, on

MORBID FEAR AS A SYMPTOM OF NERVOUS DISEASE.

The emotion of fear might be a normal one, varying in degree and kind with race, sex, and individual. It might also be a truly pathological symptom, evidencing in such case disorder of the nervous system. Normal and morbid fears might shade into each other, so that it was difficult to draw the line between them.

These morbid fears might be classified and named for convenience of study, and for the purpose of preventing their confusion with hysteria, hypochondria, dyspepsia, and actual insanity, to which conditions they were often referred. There were quite a number of morbid fears associated with neurasthenia without delusions or hallucinations.

The following classification might be given:

Astraphobia (first described by Dr. Beard a number of years ago), in which there was great fear of lightning during and before thunder-storms, that fear being preceded and accompanied by headache, numbness, pain in the back, nausea, vomiting, and even convulsions. In one of his patients suffering from that symptom, the condition was inherited from the grandmother.

Agoraphobia was a name given by Westphal, of Germany, to those having a fear of places. The term was not an accurate one, and **topophobia** should be used in its stead, agoraphobia being only a species of topophobia, and embracing those cases in which there was a fear of open squares. As an illustration of topophobia, one of his patients could walk up Broadway without fear or difficulty, on account of the numerous stores and side-streets, into which he knew he could run, in case of supposed danger presenting itself; but he could not walk up Fifth Avenue; he could not visit the country at all. He was a tall, vigorous man, and had no other symptoms of cerebral disturbance. The cases often took an opposite phase: the patients were unable to go to certain places; perhaps where they were first attacked with the evil symptoms. Some found it difficult to go on long journeys. A patient in a distant city wrote that he was coming to visit him, but after getting part of the way he had to return. Some persons had a fear of confined places. A gentleman suffering thus was obliged to camp out in the summer and sleep in a very large room in winter. He finally had to leave the city and become a farmer.

Anthropophobia, that Dr. Beard had lately described, had for its symptoms an aversion to society; fear of seeing any one; sometimes there was fear of women alone; sometimes, as in one of his patients, fear of respectable women alone.

Pathophobia, or fear of disease, was generally known under the name of hypochondriasis. Photophobia was a term that might be applied to some patients who feared that they might fail if they made an attempt to do anything.

Mysophobia, or fear of contamination, had lately been described by Dr. Hammond.

In regard to all these different forms of fear, the following general propositions were made:

1st. They were symptomatic of functional, rarely or never of organic disease. They were not, according to his experience, found in insanity or sclerotic conditions, and were no form of that disease. The morbid fears of the insane were delusions or hallucinations.

2d. The symptoms might come and go suddenly.

3d. They often were the result of disorders of the reproductive organs in male and female, but might continue long after such disorder had been cured.

4th. They rarely existed alone, but almost always were associated with other symptoms of disorder of the spinal cord or brain, especially of the brain. Among those symptoms were palmar hyperidrosis, dizziness, numbness, shooting pains in the extremities, oxaluria, etc. All those symptoms were by no means uniformly present. The patients might be of great muscular development, and capable of great bodily toil. The treatment required both constitutional and local measures. The former included the whole array of sedatives and tonics; electricity, bromides, counter-irritation at the back of the neck, and counter-irritation of the bowels by means of cathartics. The local troubles should be appropriately treated. The cases could be permanently cured, but not in any short time.

DR. J. J. PUTNAM, of Boston, asked if the vertigo ever occurred without being excited or accompanied by any motor idea or intention?

DR. BEARD thought that it did.

DR. J. J. MASON, of New York, referred to the very common occurrence of fear of lightning and storms, especially with women, and asked why this should be distinguished as a special morbid symptom?

DR. BEARD said that in the cases given there was much more than ordinary fear. The patients often suffered from nausea, vomiting, dizziness, and even convulsions.

DR. A. D. ROCKWELL, of New York, said that, without being able to give any special examples to the contrary, he nevertheless could not accept the statement that these fears were always the result of functional, rather than organic derangement.

DR. BEARD, in reply, said that it was his experience that the facts were as he stated.

DR. E. C. SEGUIN, of New York, remarked that while the minute study of a symptom of this class was very interesting, it was hardly profitable in practice. He had always found numerous other symptoms with those described by Dr. Beard, and those others were generally of the greater importance. It was better also to look at the symptoms as a whole; to study the patient as a physiological unit, rather than investigate some particular symptom, which might be more curious than important. His experience agreed with Dr. Beard's in regard to the existence of functional derangement only in connection with these morbid fears.

DR. BEARD, in reply, said that he thought the great aim should be to discover the true pathological state of the patient. A study of the symptoms about which he had written helped very often in this direction, and was therefore valuable for diagnosis, prognosis, and treatment. These morbid fears were symptomatic of cerebraesthesia (brain exhaustion), and in a large proportion of the cases (but not in all) that cerebraesthesia originated in the genital organs—uterine displacements and disorders of the neck of the uterus—and disease of the prostatic urethra in the male, from natural or unnatural excess.

DR. WEBSTER, of New York, by permission of the Society, related a case of morbid fear that had come

under his notice. A woman, 40 years old, had always from infancy been afraid of severe storms, high winds, thunder and lightning, and to those who were acquainted with her it seemed as though she was insane at such times. When a storm arose at night, for instance, she would rouse the whole house and walk the floor in the greatest distress until it subsided. She did not suffer any pain, but only from nausea. He was told that her mother, while pregnant with her, had been severely frightened by a thunder-storm. The patient's condition was attributed by the friends to that fact.

Dr. ——— agreed with Drs. Beard and Seguin that morbid fears were evidences of only functional disturbance. In his experience they were very often associated with lithuria or oxaluria.

Dr. SPITZKA thought that there could not be any sharp line drawn between morbid fear in the sane and insane. It was a frequent accompaniment of insanity, and often the first symptom of it.

Dr. Spitzka then related the following case of:

REMARKABLE SYMPATHETIC DISTURBANCE:

A young man, a persistent masturbator, while engaged in the act suddenly heard a noise like the crack of a pistol in his head. From that time he became melancholic; he noticed that one-half of his face, on the side where he had heard the sound, was hotter, and perspired more than the other. In about three weeks a carbuncle appeared on the back of the neck near the third cervical vertebra. After this, irregular yellow spots appeared on the affected side of the face, the parts atrophied, the hair became white and there were differences in the pupil. His mind became somewhat affected. It was suggested that the sound was probably due to a sudden vascular disturbance.

In a short discussion which followed, Dr. Spitzka referred to the fact that experiments and investigations showed the sympathetic system to be independent of mental disturbances, and that it could be greatly injured or diseased, and yet the mind not be at all affected.

The Society then adjourned to meet Thursday, at 2.30 P.M.

(To be continued.)

THE PHILADELPHIA COLLEGE OF PHYSICIANS.

Regular April Meeting.

(Reported for THE MEDICAL RECORD.)

UNUNITED FRACTURE OF THE TIBIA OF TWELVE YEARS' STANDING—PRESERVATION OF A USEFUL LIMB.

Dr. WILLIAM S. FORBES brought a man before the college and read the following history: A seaman, thirty-six years of age, and in full health, was admitted to the Episcopal Hospital three weeks ago with an ulcer on his leg. His ulcer is now well; but he has an ununited fracture in middle of right tibia. No bone is thrown out. The two fragments are held together by a short, dense, fibrous deposit. There is a limited amount of motion between the fragments. The patient can walk about without pain, and without the support of a splint, bandage, or cane. Has often walked as much as fifteen miles a day, and carried heavy weights long distances. Examination shows that the fibula was not broken, and hence serves as a splint to the ununited fragments of the tibia. This fact explains the sensation of pulling experienced at the upper tibio-fibular articulation after long walks.

The fracture of the tibia took place twelve years

ago, the soft parts being cut to the bone, and the latter shattered by a blow received from the end of a broken rope. He was in the Pennsylvania Hospital for fourteen months after the accident. During this period, and for twenty-two months afterward, a tin splint was worn around the leg, and the patient moved about in a rolling chair. At the end of three years he got out of his chair, and, after using a crutch for a short time, abandoned it for a cane. Since then he has led an active life, and has never been laid up or disabled in any way.

In all this time no change has occurred in the limb. Just at the line of fracture, and a little above and below it, the bone is covered by dense fibrous tissue, serving as a stay-ligament to hold the fragments in apposition. This ligament becomes very tense when the man stands on that leg.

The affected extremity is just half an inch shorter than the sound one. This slight shortness is no doubt the result of absorption of the extremities of the fragments. The fibula on the fractured side is not bent or curved, nor is it enlarged to any perceptible degree. In this respect it differs from the one in the museum of St. Thomas' Hospital, mentioned by Dr. Norris in his "Contributions to Practical Surgery," in which the increase in size was great.

It was hard to account for ununited fracture in the case under consideration, as the man had no taint or vice of system, and as he had received proper treatment at the hands of excellent surgeons. There seemed to have existed in this man what Sir James Paget calls "a simple defect of formative power;" a defect which cannot be explained, and which seems the more remarkable when we observe the many changes which may at a later time be effected, as if to diminish the evil of the want of union.

ILLUSTRATIONS OF THE VALUE OF TEALE'S METHOD OF FORCED DILATATION OF THE SPHINCTER VESICÆ IN INCONTINENCE AND EXCESSIVE IRRITABILITY OF THE FEMALE BLADDER.

Dr. ADDINELL HEWSON read a paper with the above title, giving the history of six cases of incontinence and irritability of the female bladder treated by forced dilatation.

CASE I.—Female, æt. 30. Dr. Hewson had treated the patient for severe vaginitis and endometritis, a result of gonorrhœa. Examination revealed both sets of labia much swollen, and great tenderness of the external genitals. Prolapse and retroflexion were also both detected. There was great irritability of the bladder. These troubles were all relieved by the use of a douche-bottle, double catheter, and medicated sponge-tents. Her retroflexion was subsequently treated by means of a whalebone intra-uterine stempessary. Six months later Dr. Hewson was suddenly called in haste, and found patient suffering intense agony from inability to urinate. An explanation was found in the fact that the menses had been suddenly arrested on the second day following exposure to severe cold, and that since that time the patient had suffered from lumbar pains, headache, constipation, and nausea. Great erethism had arisen, which had been relieved by severe scratching. Great tenderness of the abdominal walls was found to exist. The catheter was introduced, but only removed $f\frac{3}{4}$ in. of high-colored urine free from pus and blood. The introduction of the catheter caused the patient to scream with pain. Inspection showed the case to be one of acute sphincterismus with great inflammation of the parts.

Anæsthesia was produced by rapid breathing, and

an Ellinger uterine dilator was passed the whole length of its blades into the bladder without causing any pain or bleeding. The operation, which lasted fifteen minutes, was free from pain, although the patient was fully cognizant of what was going on.

The dilatation was followed by most complete relief. No dressing to the parts was ordered, but she was told to remain in bed. Since that time there has been no return of the bladder trouble.

CASE II.—A widow lady, who had been under treatment for prolapse, attended by great irritability and catarrh of the bladder. When summoned to see the patient on February 22, 1876, Dr. Hewson made a digital examination, and found the bladder excessively sensitive to the touch. The patient's sufferings were so great upon this occasion as to make her act and look like a maniac. Questioning elicited the fact that the great irritability of the bladder had existed ever since the birth of her first child, sixteen years ago.

Teale's method of dilatation was at once resorted to without any attempt at producing anesthesia. The Ellinger was passed quickly, without any warning, into the bladder. In twenty minutes the urethra was sufficiently dilated to allow of the passage of the index finger into the bladder. There was no bleeding, and all inclination to pass water constantly was removed. The tenderness along the line of the operation was alleviated by the application of some wet clay. The patient has never had any sign of sphincterismus since that time.

CASE III.—Robust married lady, æt. 38; barren. This barrenness, said to be due to prolapse and retroflexion, was treated by the introduction of a Meigs ring-pessary. This instrument was allowed to remain three years *in situ*. Two years after the removal of the pessary the lady became Dr. Hewson's patient, complaining of vaginitis and irritability, which, she said, had existed ever since the ring-pessary had been first introduced. This vaginitis was treated by Dr. Hewson by injections and applications. The speculum showed indurations and thickening all around the place where the pessary had been. On February 22d the patient had an intense attack of irritability and incontinence. The patient preferring not to be rendered insensible, the Ellinger dilator was at once introduced, but very cautiously, on account of the spasm of the sphincter. The dilatation was steady and forced, rather than rapid. The operation occupied half an hour. The patient seemed to be relieved.

Orders were left that clay should be applied constantly to the parts. Recovery was slow, but sure. The irritability recurred several times, but each attack was lighter. The patient is now entirely free from her old trouble.

These three cases occurred all in one day.

CASE IV.—A widow lady, who consulted the writer for a large fibro-cystic tumor, which had been diagnosed by the late Dr. W. L. Atlee as springing from the broad ligament and body of the uterus. Even at that date the patient complained of troubles with her bladder.

Some six weeks later, when the tumor had diminished several inches under the earth-treatment, the symptoms of vesical irritability became more marked. A vaginal examination revealed most positive sphincterismus, without any thickening or induration. Analgesia was produced by rapid breathing, and the whole length of the urethra was then rapidly dilated by means of the Ellinger instrument. Clay was applied daily for a short time. There has never been any return of the bladder symptoms since the opera-

tion. The tumor has decreased in size at the rate of two inches per month.

CASE V.—Married lady, æt. 43, still menstruating, consulted Dr. Hewson in 1877 about bladder troubles. Examination showed a large, tender, fatty growth in the right side of the abdominal walls. There was not much sphincterismus. The patient said that this growth was the result of a blow received on the parts some years ago, and said that the tumor and bladder symptoms developed constantly. The clay-treatment dissipated the tumor entirely in the course of four weeks, but the bladder symptoms persisted. There was great difficulty experienced in detecting the orifice of the urethra, but when found the Ellinger was rapidly introduced. The introduction was the cause of much pain to the patient. The dilatation lasted fifteen minutes. There has not been any return of the trouble since. Subsequent inquiry traced the inception of the bladder trouble to the birth of her first child, twenty-three years previously.

CASE VI.—Patient aged 45. Had suffered constantly since the birth of her first child, twenty-three years ago, with incontinence. When first seen by Dr. Hewson she had an expression of the most extreme anxiety and despair. Analgesia was brought about in ten minutes by rapid breathing. Examination then revealed sphincterismus without thickening of the tissues, but with well-marked retraction.

The Ellinger was introduced and its blades passed completely into the bladder. Dilatation lasted five minutes. Clay dressing was then applied. The results in this case were of the most flattering description. Complete relief followed rapidly upon the operation.

In closing, Dr. Hewson desired, as the title of his paper showed, to give the fullest credit to Mr. Teale for the origination of the idea of the method of treatment employed, but to make known his own ignorance of Mr. T.'s plan of procedure. He had operated in all his cases with the patient reclining on the left side, the orifice of the urethra being much more accessible in that position than in any other. The entrance once effected in this manner by an instrument, the latter can be readily and quickly glided along the passage by simply moving its handle or near extremity forward in the segment of a circle, provided that the curve of the instrument is looking backward.

After the reading of the foregoing paper, Dr. GOODELL spoke as follows:

"I have performed the operation of forcible and rapid dilatation of the urethra some fifty times at least, and have so often cured by it bladder troubles of long standing, that I wish to add my testimony to that of Dr. Hewson as to its efficiency. The female urethra does not possess a true sphincter, but, from the meatus urinarius exclusive to the neck of the bladder inclusive, it is surrounded by a network of muscular fibres, which firmly constrict it, and act the part of a powerful sphincter. It is the spasmodic or the organic contraction of this broad belt of fibres that makes woman more liable than man to urinary disturbances.

"While warmly advocating the operation of rapid dilatation of the urethra, I wish to point out certain risks attending it, to which Dr. Hewson has not adverted. One is incontinence of urine. This result I have not thus far seen in any of my own cases, because I dilate simply to the extent of the girth of my index finger, which is of medium size, and no further. But I have twice met with it in cases operated upon by other physicians, and in each the thumb had been forced in. This experience has led me to think that

there is danger in making the dilatation too great. The other risk is that of hemorrhage, either external, from the rent often made in the upper margin of the meatus, or internal—into the bladder—from the rupture of the tense and thin fold of mucous membrane often found at the neck of the bladder. I have several times met with the former, and have been obliged to use styptics. On one occasion I was compelled, in a pregnant woman, to close the rent by a metallic suture, passed deeply in, before I could check the bleeding. I have occasionally met with cases of internal bleeding, but, although one of them lasted for three days, I have not found it needful to interfere by styptic injections.

"I would further remark that in the selection of cases for dilatation it is important to distinguish between purely hysterical cases and cases in which there exists a real tonic contraction of the urethral muscular fibres. For while the operation almost always benefits the latter, it will sometimes increase the urinary troubles in the former."

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 28, 1879.

DR. FREEMAN J. BUMSTEAD, PRESIDENT, IN THE CHAIR.

EXTIRPATION OF THE BONES OF THE NOSE AND MOUTH BY THE USE OF THE SURGICAL ENGINE.

DR. D. H. GOODWILLIE read a valuable paper upon the above subject, which will be published in a subsequent number.

INTRA-VASCULAR ALIMENTATION: THE NUTRITIVE VALUE OF PEPTONES.

DR. GEO. B. FOWLER read an exceedingly important paper upon the above subject, in which he brought forward peptones as an article to be introduced directly into the circulation in cases in which nutrition could not be properly sustained by gastric or rectal alimentation.

Dr. Fowler then traced the processes of digestion, and demonstrated how nutrition was maintained by albuminates, hydro-carbonaceous substances, salines, and water. The practical results of introducing blood directly into the circulation had amounted to but very little indeed. We could not throw blood into the veins and expect its assimilation, because it was a tissue, and not a reservoir of food prepared for assimilation. The cases of success in transfusion of blood in the lower animals were those in which there had been severe loss of blood, and the vessels required the stimulus of distention. There was a class of cases, such as exhaustion from traumatic hemorrhage, in which the stimulus of distention was required, and the transfusion of blood in such cases had in many instances been successful.

When, however, blood was taken into the stomach it was not absorbed as blood, but underwent a change the same as other food. Such change was necessary, and could not occur when the tissue blood was thrown immediately into the circulation. With the view of introducing nutritive material directly into the circulation, Drs. T. G. Thomas, J. W. Howe, W. E. Bullard, and others, had resorted to intravenous injections of milk. The position had been taken that milk was not unlike chyle, but Dr. Thomas's recommendation of it had been based upon practical results rather than upon chemical or physiological bear-

ings. Dr. Fowler then proceeded to criticize the tables that had been made with reference to milk and chyle, and claimed that intravenous injections of milk were unphysiological. There was no constituent in chyle similar to the casein of milk. The milk globules were enclosed in an albuminous envelope, and were soluble only at a temperature of 115° F.; and he was not able to understand how any of the proximate principles of milk could be digested when introduced directly into the circulation.

ALBUMINOSE OR PEPTONE FOR INTRAVENOUS ALIMENTATION.

Dr. Fowler then brought forward a new article, albuminose or peptone, to be used for intravenous injections to sustain nutrition. It was digested albumen. It was the result of the action of gastric juice upon albuminous substances. It differed from albumen in its chemical reaction and physical properties. Dr. Fowler then gave a demonstration of the difference between the new preparation and albumen, as shown by various reagents, such as mineral acids, heat, alcohol, ferrocyanide of potassium, etc., etc.

The substance was obtained from finely chopped beef, by continuous boiling for forty-eight hours or more, under pressure with a weak solution of hydrochloric acid. The reactions of the albuminose, as distinguished from albumen, were very marked, and the new product was not precipitated by heat. Dr. Fowler proposed to use this substance as a substitute for milk and blood for intravenous injections to sustain nutrition. He had experimented upon several animals, and had injected large quantities in cats and rabbits, and in each instance it had been assimilated; that is, it did not reappear in the urine.

Of its nutritive value there was considerable evidence. As an example, a rabbit had been sustained for five or six days by rectal alimentation [the new product being used]; there were no feces, and the animal did not lose flesh. Dr. Fowler then made special reference to a case which he saw in consultation with Dr. Mundé, and in which resort was had to intravenous injection of the new substance, and with permanently beneficial results. About 3 iij. of the liquid, corresponding to 3 vi. of meat, were thrown into the veins, and the vomiting and all other disagreeable symptoms dependent upon perilous hemorrhage from cancer of the uterus rapidly subsided, and the patient was soon able to take food by the stomach with comfort.

The paper being before the Society for discussion, Dr. P. F. MUNDÉ gave a somewhat detailed history of the case to which Dr. Fowler had referred. The hemorrhage was exceedingly profuse, and the exhaustion was so great that he did not remove her from the table for twelve hours; at the end of that time she was removed, her pulse was rapid and feeble, and she was unable to retain anything upon her stomach. On the following day she was in very much the same condition, and was able to retain only small pieces of ice dipped in brandy. The median cephalic vein was exposed, and two and a half or three ounces of the albuminose was injected by Dr. Fowler, and about an ounce escaped into the cellular tissue, on account of an accident relating to the instrument. The fluid that found its way into the cellular tissue was readily absorbed.

The patient's pulse and temperature rose, fell a few hours afterward, and she had marked rigor, which was soon followed by well-marked, though not severe, symptoms of collapse. The symptoms, said Dr. M., were almost identical with those developed in one of Dr. Thomas's cases, in which recovery took

place after intravenous injection of milk. The patient became delirious; so much so that it became necessary to administer opium to keep her quiet. On the following morning she was very comfortable and was able to take milk, brandy, and water; her pulse was 102, and her temperature was about normal. From that time she did very well, and Dr. Mundé thought that she would not have lived two days had she not received the nourishment afforded by the intravenous injection.

DR. J. C. DALTON remarked that ever since the time when transfusion of blood first attracted the attention of the profession, it had passed through a regular series of periods in which it had been adopted and used with a great deal of enthusiasm and expectation, and then dropped and allowed to remain in oblivion perhaps fifty or seventy-five years, and again taken up with certain modifications and claimed improvements. Now we had the transfusion of other substances besides blood, and in addition to milk, which had been used in several cases, Dr. Fowler had called the attention of the profession to the value of peptone for intravenous injections to sustain nutrition. Peptones were bodies which we did not, by any means, fully understand, and probably the same could be said of all albuminous substances.

There were certain characteristics well understood, such as that they were nitrogenous, nutritious, non-coagulable by heat, etc., etc.; but it was not quite so easy to understand why it was that they did not go out of the blood-vessels. He regarded it as a suggestive idea to prepare peptones artificially, and to use them for intravenous alimentation. He thought that Dr. Fowler had employed an extremely appropriate term—namely, "*intravenous alimentation*." The term suggested to him the difference between the object aimed at by the injection of peptones and that sought by transfusion of blood. When blood was transfused from one person to another it was not for the purpose of alimentation; at least, where it had been so used, it had not been successful. But in cases in which there had been great loss of blood, in which there was no want of ability to take food, and in which there was a simple deficiency in the quantity of blood, it was his conviction that under those circumstances nothing had been found comparable with blood for intravenous injections. A certain quantity of blood was necessary to sustain life and keep the machinery in motion, and when from loss of blood the machinery was about to cease to move, the introduction of a small quantity of blood into the veins—it did not require a large quantity—stimulated it to renewed action in a manner we did not understand. In the cases, however, in which there was a demand for nutrition another condition of things existed.

An objection to injection of blood, perhaps that most frequently urged, was the difficulty of the operation. Dr. Dalton respectfully suggested that that was not an objection worthy of consideration. For nearly all operations that were valuable were difficult, and if an operation was legitimate and useful its difficulty was not a fatal objection to it. It was equally difficult to find a vein in exhaustion, either from hemorrhage or collapse, and when once lost it was very difficult to find it again. There was another point, and that was with reference to the meaning of the threatening symptoms which manifested themselves after transfusion of blood or intravenous injections, such as delirium, pain in the head, oppression of respiration, etc. He had a strong conviction that the exact mode in which the mechanical operation was performed had much to do with the development

of those symptoms. It was not the simple injection of air bubbles into the veins that constituted the most dangerous part of such an operation, for that might occur without producing fatal results, but in some manner the heart's action was arrested for other causes, such, perhaps, as the fact that the fluid was a little too warm or a little too cool, or it was thrown in a little too rapidly, or was a little too strong, or a little too weak. He believed that the disagreeable symptoms were in some way connected with the mechanism of the operation.

In conclusion, Dr. Dalton thought it important to bear in mind that the condition of a patient suffering from exhaustion due to severe hemorrhage was different from that induced by lack of nutrition.

The Society then adjourned.

Correspondence.

A RECENT MEDICO-LEGAL CASE OF INTEREST.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The late trial in Philadelphia of Edward Parr for the killing of his daughter, Susan Irwin, and the subsequent suicide of the condemned murderer, are not devoid of several points of very general interest to the medical profession throughout the land. In their efforts to discover some feasible defence of the act of murder committed by Parr, the defending counsel came upon the marks of an old fracture of the prisoner's skull, which led them to adopt the novel theory that the murder had been committed by Parr under the influence of a fractured skull and injured brain which had never recovered its wonted condition of health, but which had been subject to chronic irritation and inflammation. An oculist of experience and reputation, who was engaged by the counsel for the defence, testified that he had made an examination of the prisoner's eyes, and had found them in an abnormal condition, which condition must have been caused either by a fracture or by a tumor of the brain. Among the physicians placed upon the stand were the coroner's physician, Dr. Henry C. Chapman, and Drs. John H. Packard, William Hunt, and John Ashhurst, Jr. The testimony of these gentlemen varied somewhat; most of them agreeing, however, upon the fact that the skull did present the marks of an indentation or depression just above the attachments of the ear, which was presumably the result of an old fracture. One physician testified that the prisoner seemed to have some abnormal sensations in the vicinity of this scar when it was pressed upon; and, upon cross-examination, stated that a low state of inflammation might exist for years in a man's brain. The other gentlemen did not commit themselves so positively with regard to the probable origin of the depression or irregularities in an old fracture, and all of the testimony was non-committal as to whether there was or was not a depression of the internal table of the skull.

In spite of the ingenious argument of the defence, the jury brought in a verdict of murder in the first degree. The prisoner was placed in the dock, and the judge had just passed sentence, when Parr half raised himself from his seat, and then fell heavily forward on the floor. Physicians were at once summoned, and proceeded immediately to treat the patient for strychnia poisoning. They gave him a *hypodermic injection of morphia and injections of turpentine and whiskey*, and

a stomach-pump was also used. After working for some time, the doctors said that it would be a miracle if the man's life were saved. The ingesta removed from the stomach by the pump were preserved for analysis. It was at half-past one o'clock that Parr first showed symptoms of poisoning.

Shortly after five o'clock his pulse dropped to 80. Then followed the depression consequent upon the suffering he had undergone, and, as he sank, his pulse increased to 150.

At ten o'clock the battery was applied to the sinking man. His pulse was lowered by the application, and varied from 102 to 108. The battery was applied along the spinal column up to the back of the neck, to his breast, stomach, and each side of the neck. When it had been applied for some time, it produced frothing at the mouth, and apparently woke him up to a certain degree from the stupor he was in. At the expiration of twenty-five minutes the battery was removed, and his pulse fell to 100, and his respirations became more natural, falling from 26 to 24; the number in health averaging 18 per minute.

At half-past eleven o'clock, Parr's pulse beat 108, and the respirations numbered 27 per minute. At twenty minutes past twelve o'clock the battery was again applied, but with less effect, and at half-past one o'clock it was again tried with the same result. At three o'clock the pulse was 108, and the respiration 26. At that hour the physicians succeeded in introducing milk into the stomach, and from the indications then his prospects of recovery were considered good.

At ten minutes after three o'clock Parr rallied wonderfully, and made a desperate effort to rise. He was perspiring freely; large drops of perspiration were running down his face. He deliberately put his hand to his head and wiped the drops away. He raised himself up, and said: "Oh, my! Oh, my!" and then fell back. The attending physicians then raised him up and held milk to his lips, when he drank nearly a cupful. A small quantity of it gargled up in his throat, and, upon being told to spit it out, he did so. Shortly afterward he was given another cupful of milk, which he also drank.

His head was then laid back again, and he turned over on his left side. At this point the physicians were hopeful, and there was every indication of returning consciousness and recovery. After a time he was again turned over on his right side, and his pulse came up with more volume. Half an hour afterward he was given six ounces of beef-tea. He continued in about the same condition until half-past four o'clock, when his pulse ranged from 102 to 108, and his respiration from 26 to 28. After that time he again fell into a stupor, and gradually began to sink. He was then given a raw egg beaten up in milk. About a quarter of five he commenced to gasp, his respiration going up to 42 and his pulse to 120. He continued sinking until ten minutes of six, when he gave a long gasp, after which there was an interval of half a minute, then another gasp, with an interval of a minute, and, finally, a long deep gasp, which was his last. His death occurred at exactly eight minutes of six o'clock. He died very quietly. During his treatment hot bricks were constantly kept at his feet to keep up the temperature.

It will thus be seen that nearly seventeen hours elapsed between the ingestion of the poison and death.

We have italicized several sentences in our description of the treatment of the case, in order to call attention to the remarkable remedies employed as antidotes for strychnia. The treatment attempted by the

attending physicians was, indeed, so unique as to call forth a card from a well-known therapist and practitioner, of Philadelphia, which appeared in the *Public Ledger* of June 12th, in which he begged that it should not go upon record as the "Philadelphia treatment of poisoning by strychnia," and went on to show that tannic acid and preparations containing it, such as infusions of coffee, white-oak bark, etc., rendered strychnia inert, and that its physiological antidote is chloral hydrate, administered between the paroxysms; that the convulsions should be controlled by chloroform inhalations, and that the patient should be kept perfectly quiet, as any shock to the surface would bring on a paroxysm. The writer further proceeded to remark that it was, of course, evident that the electric battery, which is so useful in opium poisoning, was entirely out of place in Parr's case—the danger being in keeping the patient awake, and not in allowing him to go to sleep.

It is really amazing to us that intelligent physicians should display such gross ignorance of the laws of therapeutics as was done in this instance, thus laying themselves dangerously open to the charge of malpractice.

At the post-mortem examination, it was found, upon removing the scalp, that there was a depression on the left side of the skull, which was thoroughly healed, but which was plainly visible on the inner wall of the skull, forming an osseous protuberance. It was agreed, however, by all the physicians present that this fracture had not affected the dura mater, and that its existence would not necessarily make the deceased irresponsible for his actions. The brain was removed and carefully examined, and was found to be in a normal and healthy condition, with the exception of a slight congestion, which was probably caused by the convulsions following the ingestion of the poison.

The analytical chemist to whom the contents of the prisoner's stomach had been submitted for examination, reported that it contained small quantities of strychnia.

This case has seemed to us to present two points of much interest, viz., 1st, the novelty of the line of defence adopted by the counsel appointed for the prisoner by the court; and, 2d, the utterly irrational and unprofessional manner in which the poisoned man was treated by physicians of experience and intelligence, several of whom occupied positions of great responsibility in hospitals and dispensaries, and from whom the public would be led to expect an accurate knowledge of the plan of treatment proper to be pursued in such an emergency. M.

THE METRIC SYSTEM AND ITS PRACTICAL APPLICATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Having always been opposed to the adoption of the metric system in writing prescriptions (for the reason that mistakes were sure to occur through druggists being unaccustomed to use it), the writer now wishes to record his first experience in that line.

Not long since I wrote a prescription for morph. sul., 0.06 (nearly equal to gr. j.), to be made into four powders, one to be sprinkled on blistered surface every four hours if required. The druggist (one of the most pretentious on Broadway) put up gr. x., each powder containing gr. iiss. Luckily I saw the medicine before any was used, and discovered the mistake.

Your correspondent has written his last prescription in the metric system, until after the druggists of this city have been before the Examining Board on this point.

M. S. BUTTLES, M.D.

30 E. 20TH STREET, June 5, 1879.

SUCCESSFUL VACCINATION.

DOES IT PROVE THAT SMALL-POX HAS NOT BEEN RE-
CENTLY EXPERIENCED?

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue of the 14th June, Dr. C. Irving Fisher asks: "Does successful vaccination prove that small-pox has not been recently experienced?" The notes below are gathered to lead him to a more particular investigation of the subject, should he desire it.

A large number of experimenters, who have claimed to produce vaccinia on individuals once attacked with small-pox, have failed in their inoculations on all these subjects; such are Pearson (*Brodley's Phys. and Med. Journal*, übersetzt von Kühn, 1801, p. 506); Hessert (*Hessert und Pilgers Archiv für Kuhpock. Impfung*, chap. i., p. 38); Faust, Sybel, Lavater, Gray, Hellwag, Buchholz, are cited by the latter in his writings on vaccine; Ballhorn and Strohmeier (*Journal de Hufel.*, vol. x., cah. 3, p. 127); Otto (*Altenburger Annal.*, 1801); Neuhoof (*ibid.*, 1801); Semmering et Lehr. (*Prüfung der Schutzblattern*, etc., Frankfurt, 1801); Goltz (*Hessert und Pilgers Archiv*, etc., cah. 2); Gessner (*Hartenkiels med. chir. Zeitung*, 1802, vol. iii., p. 252); Michaëlis (l. c.); Hardege le jeune (*Journ. de Hof.*, vol. xxiii., cah. 2, p. 118); Sacco (o. c.), etc., who have all concluded from their experience that a perfect vaccination is as rare among those who have had small-pox as a second case of small-pox.—"Traité sur la vaccine, ou recherches historiques et critiques, etc.," p. 780.

Jenner at first cited a certain number of successful vaccinations following variola. Nevertheless, he requested other experimenters to verify his opinion, who admitted the possibility of a good vaccination after perfect variolation. (Ballhorn, Bremen, 1799, pp. 18, 15, 17; and Jenner's Further Observations, p. 42.)

Woodville saw a case in a man who took cow-pox from the animal by contact, but who, when an infant, had had variola. He also produced a good vaccination in a woman who, in her youth, had had variola; but he had never produced vaccine in individuals who had had variola a short time before. His conclusion was, therefore, that for a vaccination to be successful there must exist an interval of many years between the appearance of the variolous eruption and vaccine inoculation (Steinbrenner, pp. 780, 781).

On an examination of Steinbrenner (pages cited *et supra*) many cases will be found bearing upon the points in question, and to this most exhaustive work Dr. Fisher is recommended.

Woodville, in his "Examination of the Report of the Committee of the House of Commons," etc. (London, 1802), quotes a celebrated and experienced surgeon, Mr. Thomas Nash, as follows: "I have not been able yet to determine whether a person who has had the small-pox can receive [cow-pox]."

I have many times attempted vaccination in persons who have previously had small-pox and varioloid, after short and long intervals between their attack of

small-pox. To prove the point, though, would require an immense number of experiments, and for this we must look to the literature of the subject when vaccination was more highly esteemed and assiduously cultivated than now, viz., from the time "Jenner's Enquiry" was published to the appearance of the great works of Bousquet and Steinbrenner. Those vaccinators who have had large experience, particularly since the introduction of Beaugency virus by Dr. H. A. Marin, may have some unpublished records; but, as the matter now stands, it is safe to reiterate "that a perfect vaccination is as rare among those who have had small-pox as a second case of small-pox."

Yours very truly,

THOMAS F. WOOD.

WILMINGTON, N. C., June 18, 1879.

New Instruments.

DRESCHER'S POCKET ELECTRO-MAGNETIC MACHINE.

THIS new and portable machine resembles in style and appearance the French "Gaiffe" instrument, but embodies such important improvements as permits it to produce, with the same charge, an electric current of greater intensity and longer duration than in any instrument now in use. This apparatus can also be obtained at much less cost than the French battery. It is made of three sizes: with one battery cell, with two battery cells, and what is known as the superior two-celled machine, Fig. 3. It is manufactured by F. G. Otto & Sons, 64 Chatham St., New York.



FIG. 1.

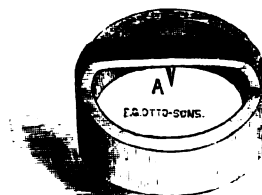


FIG. 2.

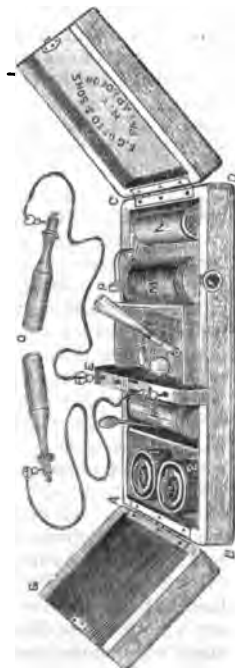


FIG. 3.

The improved pocket machines are all fitted with Drescher's patent annular cells. These are constructed simply of an annular carbon cup (see Fig. 1), which in itself constitutes the negative rheomotive element of the cell, and for its positive element has an annular

zinc plate (see Fig. 2) supported by and revolving upon an insulated central pillar. The concentric construction of the cell exposes in the smallest space the largest possible surface of both zinc and carbon to the action of the contained oxidating fluid. One of the small Drescher cells is therefore more powerful, and will generate a current of far greater intensity than an ordinary cell of two or three times its size.

To charge the galvanic cell, remove the annular zinc plate from the carbon cell; fill the latter half full of water, and add two spoonfuls (a suitable spoon for the purpose accompanies each machine) of bisulphate of mercury. Replace the zinc, revolve it to dissolve the mercury, and the cell is ready for use.

To start the machine, elevate the angular lever P, turning it toward the magnet. The vibration of its armature, producing a buzzing sound, will indicate that the machine is in action. The rapidity of the vibrations is regulated by elevating the lever more or less. Single shocks in slow or rapid succession may be given at will, instead of the ordinary intermittent current produced by the vibrations of the armature, by pressing the lever P down upon the small button beneath it. A shock will be imparted at each break of the contact.

After use the cells should be removed, washed, dried, and replaced before the machine is set aside.

To obtain the primary (mild) current in No. 3 machine, insert the ends of the two electrode cords into the holes PP and N, and connect the other ends with the handles of the electrodes.

To obtain the secondary (strong) current in No. 3 machine, insert the two ends of the electrode cords respectively into the holes marked P and NN.

To obtain the combined primary and secondary currents in No. 3 machine (producing a current of maximum intensity), insert the ends of the electrode cords respectively into the holes marked PP and NN.

To obtain the primary (mild) current in No. 1 and 2 machine, insert the two electrode cords into the holes 1 and 2.

To obtain the secondary (strong) current in No. 1 and 2 machine, insert the two electrode cords into the holes 2 and 3.

To obtain the combined primary and secondary currents (producing a current of maximum intensity), insert the ends of the cords into 1 and 3.

The strength of all the currents is regulated by means of the metallic tube F. By pulling this tube outwards the strength of the current is increased. By pushing it inwards the strength of the current is diminished.

A NEW VAGINAL AND RECTAL SYRINGE.

By W. THORNTON PARKER, M.D.,

LENOX, MASS.

THERE are a great number of vaginal syringes already in use, but among them all we have not found a good one, unless we except Higginson's, of England. Some throw too violent a stream of water, and are of course injurious. Some throw the stream into the uterus, instead of against the walls of the vagina. Some are too small, some are rough, and none are sufficiently flexible.

To meet a want in our own practice, and to remedy defects which detract from the utility of the instruments now commonly in use, we have devised a syringe, manufactured by Messrs. Tiemann & Co., of New York City. This syringe is made entirely of

rubber, and the vaginal and rectal tubes are perfectly flexible. There is no terminal orifice, but the sides are perforated with "velvet eyes" for a distance of nearly two inches from the end. These rubber syringe-points do not lacerate the mucous membrane, nor produce the injury so often caused by the hard metallic



tubes. The bulb and tubes are large, and insure a copious supply of water. It has already been examined by several physicians, and all have expressed their satisfaction with its working, and their belief that it will be an invaluable aid in the treatment of vaginal and rectal affections.

Obituary.

WILLIAM TILBURY FOX, M.D.

DR. WILLIAM TILBURY FOX died suddenly in the city of Paris, June 7, 1879, at the age of forty-three years. For the last six years he had been aware that he suffered from serious aortic disease, which was likely at any time to have a sudden and fatal termination. The death of his friend Dr. Murchison greatly shocked him. Wearied with work, he began to feel the necessity for some rest to enable him to complete the summer's work, and went to Paris for a week's relaxation. He had had several attacks of angina. He and his wife dined with an old friend on Friday evening, and he retired in his usual health, intending to return to London on the following day. At two o'clock he was attacked again with angina, from which he succumbed at an early hour Saturday morning.

Dr. Fox was the son of a physician, and was born in 1836 in the south of England. He entered the medical school of University College in 1853, where he displayed a special proficiency in pathology. He was the recipient of honors in anatomy, physiology, and surgery, in the University of London, and obtained the degree of Doctor in Medicine in 1858. At the University College Hospital he was house-surgeon to R. Quain, and house-physician to Jenner, and it was from the last-named teacher that he acquired his early knowledge of skin diseases. His first appointment was that of resident surgeon to the Lying-in Hospital at Lambeth. In 1859 he began general practice, but soon determining to practice as a physician, he selected the specialty of midwifery, wrote papers on phlegmasia dolens and puerperal fever, and was appointed physician-accoucheur to the Farringdon General Dispensary. He soon elected, however, to resume his favorite study of skin diseases, and wrote on "Parasitic Skin Diseases" in 1863, and on skin diseases generally in 1864. In 1864 he made an extensive tour through the East, and suffered severely

from what was thought to be rheumatic fever and dysentery. If his heart, at that time, was affected he was not aware of it, although he returned much enfeebled. In 1867 he wrote pamphlets on the spread of cholera in the East, and the dermatology of Egypt, and began the practice of skin diseases in London. He held the position of physician at Farringdon-Street, and was lecturer on skin diseases at the Charing-Cross Hospital. He was afterwards physician to the Skin Department at University College Hospital, which office he held at the time of his death. In 1869-70 he delivered the Lettsomian Lectures on Eczema, and re-edited, with additions, Willan's Atlas of Skin Diseases in 1875. He was the author of numerous papers on skin diseases, and, with Dr. Farquhar, drew up a report on the "Endemic Skin Diseases of the East." His confrères state of him that he will be remembered as an excellent and successful teacher. He was intensely energetic, loved his work, and was ambitious to place dermatology on a sound scientific basis. As a physician, he was loved by his patients, both in private and in hospital practice. In his death the profession has met with a loss that cannot be readily supplied. As a man he was honorable, upright, and conscientious in the discharge of all his duties, and lived an exemplary Christian life. For many years Dr. Fox was editorially connected with the London *Lancet*, and was at work till the last. He died in the midst of his labor and of his usefulness, and it was his special request that his brother, Dr. Thomas Fox, should pursue the same course of study, and finish his uncompleted work.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 22 to June 28, 1879.

O'REILLY, R. M., Capt. and Asst. Surgeon. His leave of absence, granted him May 28, 1879, from Headquarters, Dept. of the South, extended one month. S. O. 24, Div. of the Atlantic, June 25, 1879.

FITZGERALD, J. A., Capt. and Asst. Surgeon. The sick leave granted him in S. O. 42, Feb. 20, 1879, from A. G. O., extended twelve months on surgeon's certificate of disability. S. O. 147, A. G. O., June 23, 1879.

ADAIR, G. W., 1st Lieut. and Asst. Surgeon. Granted leave of absence for two months and fifteen days. S. O. 145, A. G. O., June 20, 1879.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Granted leave of absence for two months. S. O. 148, A. G. O., June 24, 1879.

POWELL, J. L., 1st Lieut. and Asst. Surgeon. The order relieving him from duty at Fort Griffin, Texas, and directing him to report at Dept. Headquarters for further orders, is suspended until further orders. S. O. 130, Dept. of Texas, June 21, 1879.

DAVIS, WM. B., 1st Lieut. and Asst. Surgeon. Temporarily detached from Fort Totten, to repair to Fort Buford and to hold himself in readiness to proceed to Fort Peck for duty at the Supply Depot to be established at that place. S. O. 64, Dept. of Dakota, June 15, 1879.

INEBRIETY CAUSED BY SUNSTROKE.—Dr. T. D. Crothers, superintendent of Walnut Hill Asylum, Hartford, Conn., reports (*Med. and Surg. Reporter*, January 25th) five cases of inebriety caused by a previous sunstroke. He concludes that this form of inebriety "is more or less incurable."

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending June 28, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
June 21, 1879.	0	11	114	2	65	24	12	0
June 28, 1879.	0	4	103	2	40	28	1	0

THE SANITARY CONDITION OF YELLOW FEVER DISTRICTS.—We are happy to be able to chronicle that official reports from the Mayors and Presidents of Boards of Health of Memphis and Collierville, Tenn.; Vicksburg, Jackson, Canton, Grenada, and Holly Springs, Miss.; Shreveport, La.; Hickman, Ky.; Helena, Ark.; Decatur and Tuscumbia, Ala., bring the intelligence that in none of the places mentioned has the health outlook ever been more favorable. In no instance has there been any indication of a return of the fever. Better health than is usual at this season of the year prevails, and every preventive that sanitary knowledge can suggest has been made use of to preclude a recurrence of last year's epidemic. Quarantine regulations have been established, and are ready to be enforced should exigency arise.

PHOSPHORIC EMULSION IN PHTHISIS.—R. Pure cod-liver oil, f 3 iv.; Glyconine (made by thoroughly triturating equal parts of glycerine and yolk of egg) f 3 ix.; Jamaica rum, f 3 ij.; Dilute phosphoric acid, f 3 ss. to f 3 ij.; Essent. oil bitter almonds, gtt. xx. Add the latter to the glyconine, then add the cod-liver oil *drop by drop*, stirring vigorously all the time; then add the rum and acid. Dose: average for an adult, one tablespoonful after each meal, being mainly regulated by the amount of phosphoric acid to be given. —(MARTIN L. JAMES, M.D., in *Trans. Med. Society Va.*; formula taken from *Archiv. Elect. and Neurol.*, May, 1874.)

THE LONG ISLAND COLLEGE HOSPITAL.—The twentieth annual commencement exercises of the Long Island College Hospital were held June 25th, and the degree of Doctor in Medicine was conferred on thirty-three graduates, twenty per cent. of the applicants being rejected. The Academy of Music was filled to overflowing. The degrees were conferred by Theo. L. Mason, M.D., President of the Collegiate Department. The address was delivered by Rev. William A. Snively, S.T.D. The valedictory was delivered by E. H. Bartley, M.D., of the graduating class. Music was furnished by Grafulla's Band.

BOOKS RECEIVED.

LESSONS IN GYNECOLOGY. By WILLIAM GOODELL, A.M., M.D. With eighty Illustrations. Philadelphia: D. G. Brinton, 115 South Seventh Street, 1879.

VADE MECUM OF EQUINE ANATOMY, by A. LIAUTARD, M.D., V.S., Prof. of Comparative Anatomy to the American Veterinary College, etc., etc. New York: Published at the American Veterinary College, 141 West Fifty-fourth Street, 1879.

Original Lectures.

THERAPEUTICS OF DIARRHŒA IN CHILDREN.

By A. A. SMITH, M.D.,
NEW YORK.

LECTURER ON MATERIA MEDICA, THERAPEUTICS, AND CLINICAL MEDICINE, IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

GENTLEMEN: I desire to call your attention to-day to diarrhœal troubles, especially those apt to affect children, not alone infants, but those under seven or eight years of age. It would be impossible to go over much of the subject in an hour; I shall therefore make my lecture suggestive, and touch only some of the most important points. Whatever the cause, all children, whether infants or those older, ought to be kept quiet when suffering from diarrhœa. They should be kept in a partially darkened, quiet room, free from noise, and all talk in the room should be avoided, especially when the child is asleep. The nervous system in childhood is so impressible it is easily disturbed, and any disturbance of this character aggravates the diarrhœa. Infants under one year ought to be kept lying down as much as possible. They should not be jolted up and down as is the custom of most nurses and some mothers, in order to amuse them. If the child is under one year, let it be placed on a pillow, if the diarrhœa is severe, as it can be kept quiet more easily in this way than when lying on the lap. Even in changing the napkin care should be taken to move the child as little as possible. Don't be afraid to keep the room well ventilated in which the child lies. Mothers usually are over-careful for fear the child may take cold, and on this account are apt to keep the room too closely shut up. When the child is awake it can be carried carefully into open air, always in the shade. Salt-air is beneficial to almost all forms of diarrhœa in children, and this is especially so in regard to city children. We in the city, therefore, urge a ride on the salt water, or taking the child to the sea-shore if possible. In all cases, in children under a year, if the diarrhœa is severe, keep warm applications over the abdomen; make a spice bag. Take a half ounce each of cloves, allspice, cinnamon, and anise seeds pounded, but not powdered, in a mortar, put these between two layers of coarse flannel, about six inches square, and quilt them in. Soak this for a few minutes in hot spirits (brandy, or whiskey, or alcohol), and water equal parts, and apply it to the abdomen warm, renewing it when it gets cool. In this way we not only get the effects of a poultice, but we also get the sedative and antiseptic effects of the spices. Great heat, with influences that depress the nervous system, bad hygienic surroundings, improper diet, too early weaning, bottle food, and dentition, are among the causes that predispose to diarrhœa. In all cases remove the cause if possible.

METHOD OF REDUCING TEMPERATURE.

There is one symptom common to almost all cases of diarrhœa if severe, and in my opinion it is the most important, and that is the increase of temperature. The best means of reducing the temperature is by the external applications of cold. Since we have the Kibbe's cot, which you have seen here, the immersion of the child in a bath is practically done away with. The Kibbe's cot can be improvised easily; it is a pleasant and convenient way of giving the wet pack; is just as effectual as the bath, and has very few of its

objections. Fold a small sheet so that it will cover the child from the axillæ to the ankles, place the child on the bed, leaving the arms and feet uncovered. The axilla can be dried easily, and the temperature be taken while the child is in the pack, or the thermometer may be introduced into the rectum, the most accurate way of taking the temperature. Water of the desired temperature may be poured on from a pitcher. In cases of slight elevation of temperature, say to 102° F., or under, sponging off the body with water about the temperature of 80° F. will usually answer the purpose, and it may be done often enough to reduce the temperature nearly to normal. But in all cases of an elevation of temperature above 102° F. resort to the Kibbe's cot or its substitute. Always remain and make the first application yourself. The parents will be timid about it. The child will cry, and it will be necessary for you to show them by the good effects produced, the wonderful power by this means of reducing temperature, of calming the restlessness and irritability of the child, and of inducing sleep. Afterward you can teach them the use of the thermometer and the methods of application of the water. The temperature of the water may be at first 90° F., then gradually, as the child becomes accustomed to it, it may be made cooler until it is brought down to 80° F. in a few minutes. It may be necessary where the temperature is very high, or where it rapidly rises after it has been reduced, to apply the water even colder than 80°. Reduce the temperature to 99°. It usually goes down still farther after the child is taken out. Remove the sheet, put the child in a thin blanket, cover it up and let it sleep. It may be left in the pack twenty or thirty minutes, longer or shorter according as you find the temperature down to 99°. In very severe cases, where the temperature rises to 105° F., or higher, it may be necessary to apply the cold every hour or two. In such cases you need not remove the child from the Kibbe's cot, but let it remain there for even days if necessary. The cot may be made comfortable by folding a woollen blanket and putting it under the child. I cannot speak too emphatically of the importance of the reduction of temperature in the treatment of the diarrhœas of children, and of this means of accomplishing it. It is, however, only an aid to other means of treatment.

NURSING AS A CAUSE OF DIARRHŒA.

One of the most frequent causes of diarrhœa in young infants is too frequent nursing. The child, when a few days old, can be taught to nurse about every two hours during the day, and every three hours at night. My first question, when I am called to see an infant under six months suffering from diarrhœa, is, "How often does the child nurse?" and frequently find it has no regularity of nursing, sometimes nursing as often as every half-hour. By establishing regularity of nursing, the diarrhœa is often cured. A child under four months, as the rule, will have two, sometimes three evacuations in twenty-four hours. This number is within the range of health. You will see many cases of diarrhœa with very little constitutional disturbance, but frequency of movements and the appearance of the movements not particularly unhealthy. Bismuth, subnitrat., three grains every two or three hours, will cure such cases.

PRETERNATURAL ACIDITY.

Some infants have a tendency to preternatural acidity in the digestive organs. The diarrhœa that occurs in such cases is accompanied with considerable pain, the passage of small, cheesy-looking masses

with the stools, the odor sour, and sometimes even offensive, the reaction decidedly acid. Such children may be given, with good effect, a teaspoonful of lime-water three times a day. Give it in two teaspoonfuls of milk. Chalk may be given. The *mist. cretæ* of the *Pharmacopœia* is a good preparation to give. It contains, besides the chalk, gum arabic, glycerine, and cinnamon, all of them good in this form of diarrhœa. Sometimes it is well to give a laxative, as some of these cheesy masses may have collected in the intestines and may be acting as an irritant. The indication is to remove them. I have found the following prescription a better one to give than the traditional castor-oil:

R. Pulv. rhei rad. gr. xv.
Sodæ bicarb. gr. xxv.
Aq. menth. pip. 3 ij.

M. Sig. 3 j. as laxative to a child from one to four months old.

In this prescription we get the laxative effects of rhubarb with its so-called secondary astringent effects, the alkali, and the sedative, and antiseptic effects of the peppermint.

In any case of diarrhœa, where there is reason to believe there is any irritant in the intestines, the treatment may be commenced by giving a laxative to remove it.

DENTITION AS A CAUSE OF DIARRHŒA.

Between the sixth and twenty-eighth month dentition plays a very important part in the production of diarrhœa. It might be called a nervous diarrhœa, for it is probably due to reflex nervous disturbances. If dentition is not directly responsible for many of these diarrhœas, it is indirectly so by putting the system in a condition to be more susceptible to all those influences which do produce diarrhœa. In all cases where the gums are swollen, lance them. In any case where it is about time for the tooth to come through lance the gums over the tooth thoroughly and draw some blood. I believe the disturbance is often due to pressure of the tooth deeply in, and before it shows much swelling on the surface. Lancing the gums never does harm. It is better to err on the side of lancing them when there may be no necessity, than to fail to lance when there might be necessity. I have often seen a child having from ten to twelve movements a day relieved entirely by lancing the gums, and with no other treatment. It is in these cases that the bromides prove so effectual. Give the following combination of a bromide with mucilage to a child between six months and a year; older children a larger dose:

R. Sodii bromid. 3 ss.
Mucilag. acacie,
Aque puræ, 85 q. s. ad. 3 ij.

M. Sig. 3 j. q. 3 h.

The bromide diminishes the reflex disturbance, and the mucilage is soothing to the irritated intestinal mucous membrane.

ERRORS IN DIET AS A CAUSE OF DIARRHŒA.

Another cause of diarrhœal troubles is the giving of all sorts of diet too early. There is a desire to make the child strong and grow more rapidly. Meat, vegetables, and farinaceous articles in abundance are given to children even eight or ten months old. A child under eight months ought to have no other diet than milk, and even up to two years milk should be its main diet. Human milk is the best during the

first year, or until weaning; but often from necessity the child is brought up on the bottle. During the first eight months cow's milk diluted one-fourth with barley-water makes the best diet. The ground or crushed barley should be boiled with water of sufficient quantity, so that when cold it is about as thick as thin cream. The milk should be given about blood-warm and a little sweetened. What place should condensed milk be given in the feeding of children? I should give it a place on the shelf at the grocers. I have tried the condensed milk with children thoroughly, and have seen it tried in the practice of others, and must protest against its use. Children fed on condensed milk, although they may thrive well apparently, yet when they fall ill show very little resisting power, and, particularly when they fall ill of diarrhœa, they weaken very rapidly and the diarrhœa is apt to be obstinate. There are exceptional cases in which it may be used, and some cases in which it is desirable to use it for a short time. When bottle-fed children suffer from diarrhœa it is well to boil the milk and make the barley-water thinner and give more of it, say one-third barley-water to two-thirds boiled milk. I have found thoroughly cooked wheat-flour an admirable food for children with diarrhœa. Have it prepared in this way: Put about two pounds of flour in a muslin bag, tie a string around the top of it, and suspend it in a kettle of water and boil it for five hours; then let it get cold. Take off the bag, cut off the outside dough and grate it. Thicken boiled milk with this to about the consistency of a thin gruel, or about thick enough for it to pass through the rubber nipple of a nursing-bottle. All food for children should be thoroughly cooked. Still more is this to be observed when they are ill of diarrhœa. As a rule, feed children suffering with acute diarrhœa just as little food as will satisfy their hunger, and often a little cold water will relieve their thirst and lessen the desire for food. Avoid alcoholic stimulants, unless there is exhaustion. Champagne iced may be given in small quantities, if there is obstinate vomiting.

FLATULENT DIARRHŒA.

There is a flatulent diarrhœa which occurs in young children and gives much trouble. The movements are frequent but very small, and the flatulence is sufficient to keep the child awake nights.

I have found the following prescription an excellent one in such cases:

R. Magnes. calcin. 3 i.
Spts. amm. aromat. ℥xl.
Tinct. assafœt. 3 i.
Anisette. 3 vi.
Aq. cinnamomi q. s. ad. 3 iv.

M. Sig. 3 i. every half-hour until relieved, to a child from three weeks to four months old. Two or three doses will usually relieve.

DIARRHŒA DEPENDENT ON NON-DIGESTION OF SUGAR.

There is a diarrhœa which occurs in the summer, characterized by frequency of discharges; the movements are green, accompanied with pain, and in many cases the stomach is so irritable that vomiting is a troublesome symptom. Probably the diarrhœa is due to non-digestion of sugar. In connection with such cases I would like to call your attention to kumys or fermented milk. In this preparation the milk has already taken the first step in digestion. There is or ought to be no sugar in it; the casein is in a fixed condition, and consequently cannot undergo the changes of coagulation and putrefaction, and there is a small quantity of alcohol, but it is in such a com-

bination that it is easily assimilated. The kumyss is charged with carbonic acid gas, but children do not take it readily with the gas in. It may be gotten rid of by taking the kumyss out of the bottle and pouring it from one pitcher to another a few times. A small quantity may be kept out for immediate use, and the remainder put back into the bottle, the bottle corked and put in a cool place. Sometimes children who are unable to retain anything else can take a teaspoonful of kumyss at a time and digest it, and frequently without any medicinal treatment will recover under its use. Twelve hours is as long as it can be kept safely, after once uncorking it. The child need take no other food while it is taking the kumyss. It is itself food and drink. It is sour, and mothers are tempted to sweeten it to make it palatable. Of course it should never be sweetened, and should never be given within two hours after any other form of milk, and should be given cold. After the first repugnance to it children take it quite readily; even children as young as six or eight months can be made to take it by taking advantage of their thirst and giving it at first in small quantities. Kumyss may be used in many forms of diarrhoea because of its easy digestion. That made by Dr. E. F. Brush, of this city, is the only preparation of it I have found reliable.

DYSENTERIC DIARRHOEA.

There is another form of diarrhoea quite common in summer, characterized by what are known as dysenteric discharges, that is, quite frequent evacuations and straining, as in dysentery, and the evacuations are about the consistence of pudding, or thin jelly, and are usually of a pinkish color. This pinkish color is due to the admixture of blood and mucus with the substance that passes the bowels. I have found small doses of castor oil and opium, given in mucilage, an excellent combination in such cases, as in the following prescription:

R. Ol ricini..... 3 i.
Sacch. lactis..... 3 ss.
Tinct. opii camph... ℥ xxxij. to 3 iss.
Mucilag. acacie,
Aque puræ, aa q. s. ad..... 5 i.

M. Sig. 3 i. q. 2 or 8 hours.

Add the paregoric according to the age of the child. For a child under a year, four to eight drops. For child of one to two years, ten drops. Don't forget the general suggestions in regard to diet in all cases of diarrhoea. It is well sometimes in these cases to give starch-water enemata. If the enemata are given the paregoric may be left out of the castor oil mixture, and laudanum may be put in the enema. One or two drops of laudanum with one to three tablespoonfuls of starch-water, may be given according to the age of the child. The starch-water should be made about as thick as thin cream, and given tepid. It may be repeated every three to six hours, according to the severity of the attack.

INFLAMMATORY DISORDERS.

There is a large class of summer diarrhoeas included under the term of inflammatory disorders. They are accompanied with great pain; frequency of movements; there may or may not be a small quantity of blood passed with the movements, more or less increase of temperature, with disturbances of the nervous system, and there may or may not be gastric irritability. The indications are to reduce the temperature, manage the diet according to the directions I have given you, surround the child by the best possi-

ble hygiene, put the warm applications over the abdomen, and give internally a combination of opium and camphor. Tully's powder, which consists of morphine, camphor, and prepared chalk, makes a good combination. The dose for an adult is the same as Dover's powder. Ten grains contain one-sixth of a grain of morphine and a little over three grains of camphor. A child three to six months old may be given an eighth of a grain every two to six hours, according to the severity of the attack and the control the powder has over it. A child six to eighteen months may be given one-sixth to one-fourth of a grain in the same way. After the acute symptoms have been controlled there remains in many cases a tendency to looseness of the bowels, with very little constitutional disturbance. Stop the Tully's and give the following:

R. Ac. sulph. dil..... ℥ xxiv.
Salicin..... gr. xxiv.
Glycerine..... 3 iij.

M. Sig. 3 i., t. i. d.

Do not give it within a half-hour of the taking of milk. The sulphuric acid has a tonic and astringent effect, and the salicin, besides its tonic effect, acts also as an anti-fermentative.

CHOLERA INFANTUM.

And now, as to the treatment of a disorder of children, which is the dread of all physicians, especially young ones, and justly so, for it is a formidable disease. I look upon cholera infantum as a disorder of the nervous system, and the disturbances of the alimentary canal as only the local manifestations of a constitutional disorder. It occurs from great heat, but it has always seemed to me that in addition to great heat there was some other element. I have noticed that cases are much more frequent when, besides great heat, there were certain atmospheric influences which depress the nervous system greatly. "Dog days," as they are called, are very fruitful in the production of cholera infantum. Among the poor, great heat, poorly ventilated rooms, poor hygiene in all its forms and with all its attendants, improper food, particularly bottle food, favor the development of the disease. I recognize two varieties of cholera infantum, and divide them, according to their manifestations, into congestive and exhaustive. In the congestive form there is redness of the surface of the body, especially about the face and head; redness of the conjunctivæ, great elevation of temperature, the pulse rapid and full, the nervous symptoms marked, twitching of the muscles, and frequently convulsions; the vomiting and purging violent, the matters vomited and passed being very thin and of enormous quantity. All of these symptoms come on very rapidly, differing in this respect from other forms of diarrhoea. The two special indications are to reduce the temperature and control the nervous manifestations. Apply cold according to the directions I have given you. Give hypodermic injections of quinine and morphine. Give to a child of six months one grain of quinine and about $\frac{1}{100}$ of a grain of morphine every four or six hours, according to the indication. For each additional six months of age an additional half grain of quinine and an additional $\frac{1}{100}$ of a grain of morphine. To simplify the matter I will give the prescriptions of the solutions of quinine and morphine:

R. Morph. sulph..... gr. ss.
Aque destillat..... 5 i.

M. Sig. ℥v. by hypodermic injection for a child six months old.

- R. Quinæ sulph. 3 i.
 Ac. sulph. dil. q. s.
 Acid carbol. cryst. gr. v.
 Aquæ destillat. 3 i.

M. Sig. Mviiij. by hypodermic injection for a child six months old.

Usually the stomach is so irritable that medicines and food are both vomited. After the temperature is reduced, and the nervous system is rested, small quantities of food can be given. Small pieces of ice may be given to allay thirst.

In the other variety, the exhaustive form of the disease, there is paleness of the surface of the body; little or no elevation of temperature; indeed, the temperature in some cases is below normal; the pulse is rapid and feeble; the nervous symptoms, although present, are not as marked as in the other variety. The vomiting and purging are violent, the child sometimes getting rid of more fluid in a few hours than it has taken in days. The emaciation is very rapid and great. The indications for treatment are to check this enormous loss of fluid and sustain the patient. Our main reliance must be on opium and alkalies and stimulants, with the general directions I have given you in the beginning of the lecture. Opium in small doses, in addition to the other effects claimed for it, is a cardiac stimulant, thus meeting one of the chief indications in this disease.

The following combination is good:

- R. Tinc. opii. camph. 3 iij.
 Mist. cretæ. 3 iij.

M. Sig. 3 i. q. 2 or 3 h. to a child of six months.

Sometimes nothing is retained by the stomach. In such cases, it is necessary for you to give the opium hypodermically. Give the $\frac{1}{100}$ grain morphine as directed in the other variety of the disease, but do not give the quinine.

Alcoholic stimulants should be given. Brandy is the best. Give five drops of brandy in a teaspoonful of water, every hour, to a child of six months, if there is great exhaustion. This quantity may be increased or diminished according to the indications. In some cases of cholera infantum a child becomes suddenly much more exhausted, pulse becomes more rapid, extremities are cold, perspiration comes out freely, and the child seems to be going into collapse. An enema of hot water will sometimes revive such a child wonderfully. Let a good quantity of hot water be used, say half a pint, and hold a towel to the anus afterward, in order to have the water retained as long as possible. Along with this give internally spirits of camphor, from six to ten drops. It may be put in with the brandy, and the two given together for a few hours. In any case of diarrhoea, where these symptoms of great exhaustion occur with the coldness of the extremities, the hot water enemata may be given.

BEEF-TEA.

The very common habit of giving beef-tea in the diarrhoea of children prompts me to say a word in regard to its use. Of course, it is given with a view to sustain the strength of the child, but I have found that almost invariably it acts as an irritant and aggravates the disease. Sometimes it seems to pass the bowels in the same form in which it was taken. In any case of acute diarrhoea I would advise you not to give beef-tea.

OPIMUM.

I believe that opium is given too indiscriminately in the diarrhoeas of children. It has its uses, and is

an orthodox remedy in such disorders, but it is given very frequently when other remedies would do quite as well and much better, and would produce none of the ill effects of opium.

Good nursing; removal of causes; keeping the patient quiet; regulation of the diet; improving the hygiene; reducing the temperature; removing the causes of disturbance of the nervous system, will, in the great majority of the cases of diarrhoea in children, do away with the necessity for medicines.

Original Communications.

EXTIRPATION OF THE BONES OF THE NOSE AND MOUTH BY THE USE OF THE SURGICAL ENGINE.

By D. H. GOODWILLIE, M.D., D.D.S.

(Read before the Medical Society of the County of New York, April 26, 1879.)

THE deep-seated bones of the nasal fossæ become necrosed from numerous causes. The diagnosis is in many cases quite difficult, as in all cases there is stenosis of the nostrils from thickening of the soft tissue. But, by the aid of the rhinoscope under a very strong light, and by properly constructed nasal speculum and probe, together with the general physical condition and history in each case, it can be made out.

If necrosis is present to any great amount, it will generally be observed that the necrosed material will have made excoriated tracks on the pharynx on either side of the vertebral ridge.

Sometimes one, and again both sides, may be so seen. On the side on which the greater amount of disorganized tissue flows will be found the openings to the necrosed bone. If the vomer is the only bone necrosed, fistulous openings may be discovered—often near the junction of that bone with the palate posteriorly.

In many cases, owing to extensive swelling of the parts, rhinoscopy is impossible.

Necrosed bone cannot always be felt with a probe from the anterior nares, as the fistulous openings are in the posterior nares, and open toward the pharynx.

But, should there be necrosis of the soft parts, or if the bone necrosis extends to the maxillary bones, then it may be discovered by the probe.

The causes, in the writer's experience, have been in about the following order:

1. From a morbid virus in the system, in which syphilis stands most prominent, struma, diphtheria, etc.
2. From mechanical and traumatic causes; polypi, causing by their growth pressure and consequent necrosis; foreign substances, deviated nasal septum, blows upon the nose, etc.

In the nasal lesions in tertiary syphilis, the necrosis nearly always commences in the vomer, then extends to the other bones of the nasal fossæ. The first symptoms are an intense pain in the frontal sinuses, extending down the bridge of the nose, and, when the disease has extended to the hard palate, pain in the mouth, in the centre line of the palate.

Treatment.—When necrosis has been recognized, no time should be lost in removing it. The dissolution and discharge of a necrosed bone may cause the loss of the surrounding hard and soft parts. It will be

necessary to give constitutional treatment suitable to each case. In December, 1872, the writer devised and made use of single and multiple revolving knives, saws, and trocars for operations upon the hard and soft tissues of the mouth and nose, the revolving power being supplied by the *surgical engine*. This consists of a fly-wheel, set in motion by the foot, a driving-pulley, and a communicating cord. On the top of the upright movable shaft the pulley is connected to a flexible wire cable inclosed in a flexible sheath. This cable is connected to the hand-piece, in which can be put any revolving instruments. The flexibility of the wire cable allows the instrument in the hand-piece to be freely used at any angle. The hand-piece, held in hand as you hold a pen, is under perfect control. The instruments are securely fastened in the hand-piece by means of a spring-catch.

The *single revolving knife* (Fig. 1) is circular and

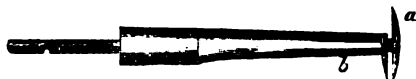


FIG. 1.

sharpened on the edge (*a*), and has a protecting sheath (*b*) to cover up the part of the knife left exposed.

Under a velocity of two or three thousand revolutions per minute, the single revolving knife, in cutting soft sensitive parts, gives little or no pain.

The *multiple revolving knives* (Fig. 2) are arranged around the end of a shaft in an acute angle, and cut

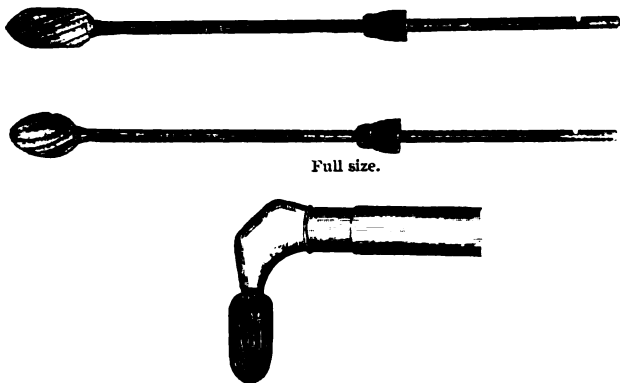


FIG. 2.

as they revolve, and do not *scrape* as the dental burrs. These instruments have a protecting sheath (Fig. 3), to be used when necessary.

FIG. 3.—Knife (*a*) within the sheath.

Saws, like the single knives, are circular, and have teeth on the edge.

The *trocars* are of different forms and sizes, and



FIG. 4.

they are intended to make an opening and then to enlarge it. Fig. 4 shows two of the most efficient

ones: the spiral cutting edge, and the other flat, with two straight cutting edges and double edges on the point.

Self-retaining nasal speculum (Fig. 5) represented in THE MEDICAL RECORD, July 31, 1875. The writer has



FIG. 5.

several modifications of it to more effectually show the posterior nares.

Oral speculum described in the Transactions of State Medical Society, 1877, and consists of hard rubber or metal splint (*b, b*), covering upper and lower teeth, attached at their posterior ends by an adjustable hinge

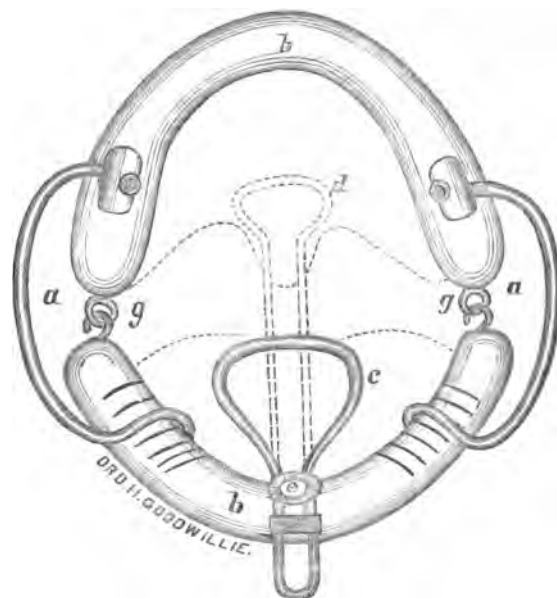


FIG. 6.

(*g, g*). The splints are separated and the mouth kept open by a brace (*a, a*) on either side. The palate spatula (*d*) is attached to lower splint, the other end holding the palate against the pharynx. The *head-rest* fits the back of the head and neck, with side-pads, over these, and over the brow of the patient passes a leather strap, firmly confining the head. (See *N. Y. Med. Jour.* for July, 1872, page 22. Resections of maxillary bones without external incision.)

Operation.—The patient is placed in an operating-chair, nitrous oxide is given to produce anaesthesia, and then ether is used, and the head securely fixed in the head-rest. If the operation is in the nose, now close off entirely the nasal pharyngeal opening by pushing the uvula and soft palate back against the pharynx by means of the palate spatula, which is attached to the oral speculum. This will prevent the necrosed portions of bone thrown from the revolving knives from entering the larynx. Where the operation is

done without an anæsthetic, this preventive measure is not necessary. In the operation for the removal of the vomer, the knives are used to remove the anterior part of the necrosed bone (Fig. 7, shown by dotted

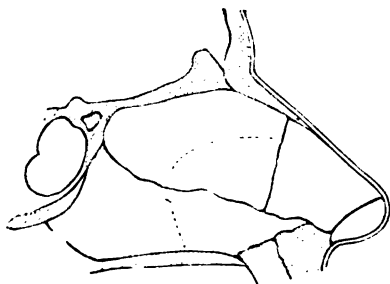


FIG. 7.

line), and then the posterior part grasped with the forceps through the anterior nares.

This is pulled out from between the soft walls covering this part of the bone. When moved from its bed, it is either brought out through the anterior nares, or, if too large to pass there, it may be passed through the posterior nares. By the careful removal with the forceps of this posterior half of the vomer, the soft parts remain, and thus the union between the septum and palate is not destroyed. Have noticed in some cases a partial reproduction of that bone. In the case of the turbinated bones, they are entirely removed by means of the knives. The hard palate and maxillary bones can all be removed without disturbing in the least the soft parts. From a sinus big enough to admit the instrument can be successfully removed any amount of necrosed bone.

Before the patient recovers from the anæsthetic, and before the oral speculum is removed, the nasal cavity is syringed out with cold water, and cleared of all necrosed bone and blood. When sufficiently recovered from the anæsthetic, remove the speculum and unstrap the head. If the necrosed portions are too large to pass out of the anterior nares, let the speculum remain until the patient has regained consciousness, and then remove through the nasopharyngeal passage or through any breach that may be made into the nasal cavity from the mouth.

The writer never makes use of sponges on cut surfaces in either mouth or nose, but makes use of anti-septic paper; or, if there is any hemorrhage from small vessels, it may be arrested by applying styptic paper. Have never yet had any secondary hemorrhage.

The writer has made use of the surgical engine for the successful removal of adhesions of the soft palate against the pharynx, nearly closing up the naso-pharyngeal passage. It has been successfully used in trephining the antrum, mastoid cells, exposing the superior and inferior dental nerves, opening abscesses, resections of the jaws, removal of epulic growths. Indeed, in many other surgical operations on any part of the body, it can be most efficiently used.

CASE I.—Mrs. C. T., aged thirty-five years; born in New York; married November 25, 1868. Up to this time quite healthy. Four months after marriage had syphilis, for which she received treatment by her family physician. Up to present time has had four births. Her first child still-born at six months; second child born at full term and lived a week; third child still-born at eighth month; fourth child born at full term and lived ten months.

In 1872, had syphilitic laryngitis and was salivated. She came under my care in November, 1874. On ex-

amination I found necrosis of the vomer, lower portion of the ethmoid, vault of the hard palate, and inferior turbinated bones of both sides, and alveolus of the intermaxillary bone. There was a hole in the hard palate a half-inch in length. Front teeth quite loose from necrosis of the maxillary bone. These were at once removed. Rhinoscopic examination very difficult to make, as the uvula and soft palate were much swollen. Large ulcers on the pharynx. To combat the specific poison the patient was put upon iodide of potassium, two grammes, and increased to four grammes a day, with tonics and nourishing food.

April 29, 1875, operated for the extirpation of the necrosed bones. There were present, Drs. A. C. Post, J. T. Darby, Leonard Weber, L. B. Bangs. All the necrosed bones were removed by the revolving multiple knives through the opening in the palate and through the nostrils. The necrosed palatal vault, both inferior turbinated bones, and a small portion of the vomer, were removed through the opening in the palate; through the nostrils, all the necrosed portion of the maxillary bone and the anterior portion of the vomer and ethmoid.

The posterior portion of the vomer was now seized with the forceps and removed. By this means the soft parts covering the vomer were left intact, so that by a rhinoscopic examination the posterior part of the septum was seen as before the operation. In this case there appeared to be a reproduction of bone in this part of the vomer, and to some extent of the hard palate.

A few days after, removed by the knives some small necrosed portions of the intermaxillary, after which the parts healed rapidly. The voice somewhat nasal in tone until the opening in the palate was closed.

In October, 1875, about six months after the extirpation of the necrosed bones, uranoplasty was performed for the closure of the opening in the hard palate, which was now three-fourths of an inch in length. After removing the mucous membrane from edges, an incision is made on each side of the fissure through the soft parts and newly formed bone of the hard palate.

The soft parts were cut through by means of a galvano-cautery knife, and so had no bleeding. The bone is now pierced by the drill, and the bone separated by a chisel after the method of Sir William Ferguson; or it may be sawed through, and then they are sprung together and the fissure thus closed. In this case four horse-hair sutures were used to hold the flaps together.

These side-incisions must be kept open by packing them, or removing the granulations each day, to prevent healing until the edges of the fissure are united. A gutta-percha splint is now fitted and worn over the palate. This prevents the food, fluids, and air from causing disturbance to the healing process.

I present wax models of this case taken from casts of it before, during, and after completion of the operation.

It will be seen that the external appearance of the nose has not altered in shape, notwithstanding the nasal septum and bony palate, upon which it rests, are gone. Have never seen the nose fall in except when the cartilage or nasal or maxillary bones were involved—in other words, the bridge of the nose.

CASE II.—Mrs. F. C., aged twenty-one years, born in New York State, was sent to me by Dr. J. Marion Sims. She was married in 1865; then quite healthy; has had three still-born children, and one now living.

In January, 1872, had inflammation of the brain, which was afterward followed by inflammation of the bowels. In 1873 had severe neuralgic pains on the

bridge of the nose, centre of the hard palate, and left side of the face. This was followed by a swelling in the centre of the hard palate, and all the upper teeth were extracted. In December, 1873, when she came under my care, her condition was as follows: Her physical powers were very much reduced; constant pains in her head; a hole in the left canine fossa; great discharge from the nose and mouth. By rhinoscopic examination, and by a probe through the hole in the canine fossa, I discovered necrosis of the nasal septum and turbinated bones of both sides.

The specific origin of disease being recognized, she was put upon iodide of potassium, tonics, cod-liver oil with phosphates. December 26th, as there was a good deal of pain and swelling of the nasal septum, it was lanced, and bled freely and gave her great relief. January 4, 1876, lanced the nasal septum again. February 3d, periostitis of the left nasal bone externally appeared; applied a leech. February 4th, swelling and pain gone. February 9th, patient having improved in strength, but still suffering intense pain, removed all the necrosed bone by the revolving knives. In this operation removed the vomer, lower portion of the ethmoid, inferior and middle turbinated, maxillary walls of both right and left antrum, and a good portion of the hard palate. Present, Drs. George A. Peters, E. L. Keyes, F. R. Sturgis, and G. H. Fox. February 10th, found the patient going about the house attending to some of her household duties; no pain since the operation. February 13th, removed small pieces of the intermaxillary bone. March 6th, had some swelling of the left side of the nose, extending under the eye.

Feeling herself so much better after the operation, she had neglected to take the potassium as ordered, and this is the penalty of such disobedience. Ordered a leech and increased the dose of the iodide of potassium to four grammes per day. March 8th, swelling very much reduced and pain nearly gone. March 10th, pain and swelling gone. There was a small amount of pus on the left side of the nose, which was drawn away with the aspirator. April 10th, patient expresses herself as being nearly well. Iodide of potassium reduced to two grammes every other day. Cod-liver oil to be continued. June 23, '76, patient now quite well, and by a rhinoscopic examination no discharge was discovered. There now only remains the opening of the canine fossa to be closed.

CASE III.—*Necrosis of turbinated bones from scrofula.* Miss E. J. A., aged twenty-years, has had discharges for some time. Smelling much impaired. On examination discovered that both middle turbinated bones were necrosed. Considerable bulging of the nasal septum to the left side, which, her mother says, came from a fall in childhood. Removed the necrosed turbinated bones with the revolving knives, while she was under anæsthesia produced by nitrous oxide. After a month's treatment the parts healed, respiration free through the nostrils, and she was discharged.

CASE IV.—The following case was brought to me by Dr. Leonard Weber, of this city: William H., of New York, aged thirty-two years, with syphilitic necrosis of the bones of the nasal fossæ. His condition was found as follows: Small hole through the hard palate one half inch in length; four fistulous openings—above the alveolus, at the left central incisor, on each side of the left canine, and above the first molar of the same side. Some teeth were extracted on this side; the sound and firm teeth were allowed to remain.

In the presence of Drs. L. Weber, C. C. Lee, R. P. Lincoln, T. R. Pooley, H. G. Fox, L. Spannhake, and

E. C. Lining, U.S.A., there were removed through the opening in the palate, and through the nostrils, the hard palate, vomer, inferior turbinated bones, cancellated portion of the left maxillary and intermaxillary bones.

The posterior portion of the vomer was dislodged and removed by the forceps, without separating its covering from the palate. In these extirpations there has never been any great amount of bleeding, and have never yet had to resort to the tampon. The styptic action of the paper controls all bleeding from the small vessels. There was much thickening of the soft parts, just inside of the vestibule of the nostrils; and as it interferes with free respiration, it was removed by means of the galvano-cautery. A protecting shield is put into the nostril, the top part of which incloses the part to be cauterized. The white-hot cautery wire is applied through the shield to the part exposed at the top of it.

CASE V.—H. W. B., from Otsego county, New York, had catarrhal difficulty when a child. Has had polypi removed from right nostril by family physician. In July, 1876, the writer removed a large polypus from right nostril, attached by a large pedicle to upper part of vomer. From pressure the left middle turbinated bone had been lost, and from the same cause the vomer was pushed to the left. The right inferior turbinated was forced down into the inferior meatus. There were three bends in septum. The greatest bend was in the posterior and upper part of the septum; the lesser bend in the cartilaginous septum. The whole septum had also a very sharp bend, with hypertrophy of the bone along the line of, and bending into, the inferior meatus. This, with a pushing downward by the growth of the inferior right turbinated, produced complete stenosis of that nostril. This warping of the septum into the inferior meatus probably commenced with his trouble in childhood. This condition of things prevented the free discharge of mucus from the nostrils. In September, '76, removed with the nasal punch a portion of the bend in the cartilaginous septum. When I saw him again in May, '77, the upper part of the vomer had necrosed and passed away, the lower thick hypertrophied part was removed under an anæsthetic. The multiple knife, armed with a shield, passed through the inferior meatus, cutting its way through to the pharynx. The inferior turbinated bone was also removed. This gave a clear passage for the escape of the mucus and free respiration.

The most common local application used in these cases is a powder consisting of iodoform and camphor, each four grammes, subnitrate of bismuth, thirty-two grammes, blown into the nostrils with several pounds' pressure, so as to reach every part of the nasal cavity. To do this efficiently the powder must be impalpable, the calibre of the blower small, and applied with considerable force of air, the parts to be thoroughly cleansed with salt and tepid water by means of a syringe, and then the powder applied through the anterior nares.

CALOMEL IN ECZEMATOUS AFFECTIONS.—Dr. H. E. Dykeman highly recommends the following in indolent secondary syphilis, particularly when cartilaginous regions are attacked in eczematous affections, and in pruritis vulvæ:

R. Hydrarg. chlorid. mit. grs. xxx.
Adipis. ʒ i.
M.

INFLAMMATION OF THE FRONTAL SINUS, ABSCESS, AND FISTULA.

By CHARLES STEDMAN BULL, A. M., M.D.,

SURGEON TO THE NEW YORK EYE INFIRMARY.

OWING to the somewhat intimate connection between the cavity of the nose and the frontal sinus, which exists through the prolongation of the nasal mucous membrane through the infundibulum to the sinus on either side, catarrhal inflammation of these sinuses is a very common accompaniment of naso-pharyngeal catarrh. Though it may occasion a great deal of discomfort, and even actual pain, yet the inflammatory process usually passes off, as does the nasal catarrh, without producing serious disorganization, though leaving behind a tendency to its recurrence, which increases with every relapse. Serious inflammation, resulting in the formation of pus, would here, however, very naturally cause a distention of the sinus, and, owing to the extreme narrowness of the passages between frontal sinus and nasal cavity, an abscess would form, caries of the bone would occur, and a perforation through the skin would lead to the formation of a fistula of the most obstinate and annoying kind.

The inflammation of the mucous membrane lining the sinus may be acute or chronic, and in rare cases leads to the formation of pus. The symptoms are often very obscure, and the differential diagnosis very difficult, owing to the fact that the symptoms may so closely simulate those of orbital disease. The abscess may open through the skin before a diagnosis is made. If the external swelling extends lower down in the lid, so as to reach the internal ligament in front of the lachrymal sac, it may be mistaken for distention of the sac, though usually the latter is a softer swelling.

There is sometimes considerable deformity from displacement of the eyeball downward and outward. The external opening usually occurs in the upper lid, near the superior border of the tarsus; and if the abscess continues discharging, the lid becomes adherent to the orbital margin at the point of the opening in the sinus, and the mouth of the fistula is retracted. If proper treatment is not resorted to, extensive caries of the frontal bone in the vicinity is very likely to occur, the dead bone coming away in small flakes.

The proper treatment consists in making a communication between the abscess and the cavity of the nose, so that, by continuous drainage and the use of either caustics or astringents, the discharge of pus may cease and the cavity eventually fill up. If the abscess have not opened externally, make an incision through the skin, over the most prominent part of the swelling, and evacuate the contents. Usually the antero-inferior wall of the frontal sinus will be found either entirely absorbed or reduced to a mere shell. Then enlarge the opening and explore the sinus thoroughly for dead bone. Put one finger in the sinus, and the little finger of the other hand in the corresponding nostril, so as to find out how near the fingers may be approximated, and thus learn how far the destructive process may have extended. If the intervening bony division is found to be thin, it should be divided by a small gouge, working from the sinus downward and inward, and, a communication having been established, a small rubber drainage-tube, suitably pierced with holes, should be introduced. This serves the double purpose of keeping the channel open and of enabling the surgeon to wash out the

sinus and nose. When this has been done, and all particles of dead bone removed, the suppurative process diminishes very rapidly; and when the drainage-tube is removed, the external fistula closes of itself, though occasionally it may need to be stimulated, either by freshening the edges or by one or two applications of some caustic agent.

The following case is a typical one of its kind, and, as the disease is a rare one, the history will be given in full.

CASE.—The patient was a young man, *æt.* 25, an officer in the merchant marine, who had been troubled for years with naso-pharyngeal catarrh, which had affected the middle ear and caused deafness, for which he had been treated. The catarrh remained, however, and his attention was directed to his present trouble, three years before I saw him, by a severe pain over the right eye, just below the eyebrow, which lasted a week or ten days, and was followed by a swelling in the same place. This occurred in the course of an acute attack of naso-pharyngeal catarrh. This swelling he could cause to disappear by pressure, and then the contents seemed to escape by the right nostril. These symptoms have recurred again and again, and sometimes the swelling was so great as to close the right eye. Three months before I saw him the swelling had recurred, opened externally with great pain and redness of the skin of the lids and forehead, and a large quantity of pus discharged. Since then the abscess has never closed, but a small amount of offensive pus is discharged constantly, and occasionally small particles of bone have come away. There is a fistulous opening through the upper lid, just beneath the edge of the orbit. The mouth of the fistula is adherent to the orbital margin, and a probe introduced passes upward, backward, and inward to the depth of an inch and a quarter.

An incision was made parallel to the orbital margin with a strong scalpel, for about an inch in length, which easily broke through the thin shell of bone which was left. The lips of the wound were then held apart, and the cavity carefully and gently syringed with warm water. Some pus and a few small scales of dead bone came away with the water, but none passed down into the nostril. An examination of the frontal sinus then showed an eroded condition of its bony walls, with, however, no very extensive caries. A second use of the probe broke through a slender bony partition near the median line, and a stream of water injected into the sinus trickled out of the nose. The cavity was so small that it was thought best not to introduce a drainage-tube, but to introduce a tent in the external wound in order to keep it open, and trust to natural drainage. Directions were also given to syringe the sinus twice a day gently with warm water and a few drops of a saturated solution of potass. permangan. Under this treatment the purulent discharge rapidly subsided. What dead bone came away was in such small particles as were not recognizable, and in a little more than six weeks the sinus and fistula had both closed, without any further interference. The lid, however, remained attached to the orbit at the seat of the former fistula, and this interfered somewhat with its motility, though not to any very disturbing extent.

COLUMBUS MEDICAL COLLEGE.—Certain minor chairs in this institution have been abolished and their duties placed upon the original ones to which they were subsidiary. It is intended that this change shall make the course less cumbersome to the student and more thorough.

JABORANDI IN THE TREATMENT OF PUERPERAL ALBUMINURIA AND CONVULSIONS.

By EVERETT S. WARNER, M.D.,

LATE HOUSE PHYSICIAN IN BELLEVUE HOSPITAL, NEW YORK.

In the RECORD of March 1, 1879, are reported six cases of puerperal albuminuria treated by jaborandi. Of these, four had convulsions. Five out of the six cases died, and of those which had convulsions none recovered.

The doubt in many professional minds—which such unfavorable reports increase—as to the usefulness of jaborandi as an eliminative agent, induces me to offer the following case of puerperal eclampsia, in which its administration was certainly most beneficial.

The patient was a primipara, æt. 22, six and a half months pregnant. For several days she had suffered from headache and epigastric pain, with vomiting, and had passed only a small quantity of urine. During the twenty-four hours previous to the attack these symptoms became greatly aggravated.

When I first saw her, 9.30 P.M., June 4th, she had just emerged from the third convulsion, the first one having occurred late in the afternoon of the same day.

The patient was sleeping heavily, but on awaking appeared confused and excited. Temperature (axilla) 101½. Pulse regular and full at 90 per minute. Skin hot and very dry. There was slight œdema about the ankles. Pupils dilated, but no disturbance of vision. Auscultation of anterior surface of the chest negative. Patient complained bitterly of headache. Every few moments she vomited distressingly, the vomiting being accompanied with severe epigastric pain. The fetal heart could not be detected, but movements of the child were distinctly felt. The bowels had moved during the day. The urine became solidified by heat and nitric acid, and this, after standing for thirty-six hours in the test-tube, showed only a thin layer of fluid above the mass of albumen. Hyaline casts only were discoverable, and these were in great abundance. Administered ℥. xv. fluid ext. jaborandi hypodermically. In about twenty minutes the skin became a little moist. Soon after repeated the dose, and in a few moments the diaphoresis was considerable—not excessive—attended with slight increase in the salivary secretion. Also ordered oxalate of cerium, grs. iij., q. 3 h.; poultices to the epigastrium, and cold applications to the head. After the first dose of oxalate of cerium the vomiting ceased, and was not renewed except once on the following day, when it lasted for a moment only. Within an hour after giving the jaborandi I left her sleeping naturally.

On the following morning, June 5th, found she had passed a comfortable night, sleeping most of the time. Pain in the head was much relieved. Epigastric pain nearly gone. Temperature 101°. Pulse still regular and full. Four ounces urine discharged during the night. The sweating, which had been encouraged by abundant coverings, continued until early morning. As the skin was now again rather dry, gave ℥. xv. of the fluid extract hypodermically, which resulted in slight perspiration. Continued the oxalate, and in addition gave inf. digitalis 3ij. with pot. acetate, grs. xv., q. 3 h., and applied dry cups over the kidneys. Eight ounces urine passed during the day.

There were two convulsions during the day—one at

10 A.M. the other at 4.30 P.M.—which were controlled by chloroform. The non-viability of the child, the anxiety of the parents for its life, and the improvement in the condition of the mother, together with the fact that the existence of the child had been determined on the previous day, had prevented the induction of labor.

The next morning, June 6th, uterine contractions began. An enema was given and the os partially dilated by the fingers.

Labor terminated in four hours. The fœtus had evidently been dead for only a short time.

The last convulsion, which was long and severe, occurred three hours after delivery of the child. I saw her soon after it. She was tossing uneasily about the bed. The condition of the pulse did not warrant the further administration of jaborandi. Gave ℥. ix. Magendie's sol. morphia by hypodermic injection.

June 7th, morning.—Patient slept well. Passed about twelve ounces of urine during the night, fifty per cent. of which is albumen. Casts are less numerous. The digitalis and acetate of potassa, discontinued on the previous day, are again renewed.

From this time patient rapidly improved; the urine increased to more than normal quantity. Albumen and casts gradually grew less, and now, June 16th, twelve days after the attack of convulsions, the urine is normal and patient is allowed to sit up.

Had the usual dose of jaborandi or its alkaloid, pilocarpine, been given in this case, I doubt very much whether it would have progressed so favorably.

From the numerous cases, chiefly of Bright's disease and principally in hospital practice, in which I have watched the effect of the drug, I can but believe that the ordinary dose—3i. of the fluid extract—is, as a rule, by far a too large, and in many cases a dangerous quantity to administer.

A case was admitted, last winter, to Bellevue Hospital, suffering from acute Bright's. The skin was hot and dry; pulse strong and regular; temperature considerably elevated; auscultation of the chest negative. I immediately gave 3i. fluid extract jaborandi by mouth. Within an hour, while in a most profuse perspiration, the patient was suffering from extreme dyspnoea, with bronchial and tracheal râles.

The case terminated fatally in a few hours, death apparently being due to suffocation, as the action of the heart continued good until near the end. The autopsy showed œdema of the lungs, with a large amount of fluid in the bronchi. Jaborandi increases the bronchial secretion, as the frequent development of abundant râles, soon after giving it, proves. This increase is sometimes so great as to prove a serious obstacle to respiration. May not jaborandi also cause transudation of fluid into the pulmonary air-cells?

Obstructed respiration and failure of the heart's action seem to me to be the dangers especially to be feared in prescribing it. By giving the drug in small doses the patient is not subjected to these dangers; at the same time considerable diaphoresis is produced, with but slight salivation.

By no other means can sweating be brought about so quickly, easily, and with less discomfort to the patient. ℥. x.—xv. of the fluid extract, or the equivalent in pilocarpine, should be given either by the mouth or hypodermically, and this dose repeated every half-hour until moderate perspiration is induced. By keeping the patient well covered, diaphoresis will continue for several hours.

193 EAST TWENTY-FIFTH STREET.

Reports of Hospitals.

JEFFERSON MEDICAL COLLEGE HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Reported for THE MEDICAL RECORD.)

CYSTITIS IN THE MALE.

If there is acute pain and spasm, blood is taken from the perineum by means of leeches. The patient is kept in bed, and hot fomentations are applied over the pubes. At the same time he takes demulcent drinks with a little hyoscyamus. If the pain be violent, morphia is given by the mouth or rectum.

The following prescription is frequently employed :

R. Pulv. opii..... gr. xij.
Camphoræ..... gr. xxx.
Ext. belladonna..... gr. iij.
Cacao..... q. s.
M. et in suppos. No. vi.; divide.

S.—One each night before retiring.

The diet employed is bland and unstimulating.

After the acute symptoms have abated, balsam of copaiva is given thrice daily in capsule, or rubbed up in an emulsion. To this opium is occasionally added to prevent flatulence and griping. Turpentine in capsule is used with advantage in some cases. Other remedies are sometimes employed—such as buchu, decoction of trailing arbutus, or uva ursi with hops, highly recommended by Sir Henry Thompson—uva ursi, f 3 iss., lupulinæ, 3 i., aquæ, Oij. This mixture is allowed to simmer for two hours; then enough water is poured in to bring the quantity of the mixture up to two quarts, and then two grains of morphia and two drachms of the bicarbonate of sodium are added. The dose of this mixture is a wineglassful.

In some cases benzoic acid is found very useful. The initial dose is five grains, and the quantity is then gradually pushed up to thirty grains, and, in some instances, as much as one drachm is taken thrice daily.

A prescription very often employed by Dr. S. W. Gross and other members of the hospital staff is the following :

R. Copaibæ balsami..... 3 iv.
Acid. benzoici..... ʒiv.
Gummi arabaci,
Sacchari, ʒʒ..... 3 ij.
Gaultheriæ olei..... gtt. xx.
Aque camphoræ, q. s. ad..... f 3 viij.

M.

S.—A tablespoonful every four hours.

As regards the treatment of the urine, the first thing that is done after dilating the stricture, if one exists, is to wash out the bladder. This is usually done in the following manner: A gum elastic bag, holding about four ounces, is procured, and a basin full of water at 98° is made ready. Then, after drawing the urine with a flexible catheter, whose end is smooth, the bladder is washed out by simply connecting the mouth of the bag with the catheter, which has been allowed to remain *in situ*. The warm water thus injected is retained as long as possible, then drawn off, and the operation repeated.

If the urine is fetid, one grain of the permanganate of potassium, or a small part of carbolic acid, is

added to each part of warm water. When the water comes out clear, if it is desired to make an impression upon the mucous membrane of the bladder, a solution of borax (fifteen grains to the fluid ounce of water) is injected. At other times a twenty-grain solution of the nitrate of silver is employed. If this solution does not cause too much smarting it is allowed to remain ten seconds in the bladder.

The patient is kept at rest in bed during this treatment, and placed upon a very bland diet. (If there be any pain after the warm-water injections have come away, a little morphia is thrown into the bladder, and allowed to remain there; or, if this does not afford relief, a hypodermic injection is given).

In some bad cases it is necessary to perform cystotomy, or colotomy, in order to bring about a free discharge of fluid from the bladder.

Patients with cystitis are warned not to ride in wagons over rough stones; if possible, to refrain altogether from riding. They are advised to avoid all stimulating drinks, and to always wear flannel next their skin. They are not allowed to eat any greasy food, but are allowed plenty of fish and oysters. Their bowels are kept open by cold-water injections, or saline cathartics.

TINEA FAVOSA.

The hair is first pulled out by the roots, the parasites killed, and the scabs poulticed. Before beginning to pull out the hair, however, the whole head is closely shaved. The separate hairs are pulled out with delicate tweezers. These hairs are pulled out in their long axis, otherwise they would be liable to break off short. The poultice is applied immediately after the hairs are pulled out, so that the pustules may be well softened. After applying the poultice some parasiticide—such as the iodide of sulphur, or the bichloride of mercury—is rubbed in. The parasiticide most frequently used by Dr. J. Solis Cohen is that formed by adding gr. ij. of sulphur iodide to ʒi. of lard.

EXTERNAL HEMORRHOIDS

are treated surgically by incising the pile with a bistoury, and then pressing out its contents, viz., the contained clot of blood. This slight operation relieves the pain and tension at once. As an after-treatment the parts are well bathed with cold water, and some medicine given to act on the liver and bowels. Dr. Samuel D. Gross does not at all believe in the immediate removal of these growths with the knife, as recommended by Erichsen and Bryant.

NÆVUS MATERNA.

Two oiled pins are pushed right through the base of the growth so that they cross each other at right angles. A groove is then cut all the way round between the points of entrance and of exit of the pins with a sharp knife. A stout ligature is then passed round the base of the nævus and underneath the pins, and is drawn so tight as to completely strangulate the growth. Dr. S. W. Gross does not believe in temporizing in these cases by the use of the cautery or by the injection of irritating substances into the body of the tumor.

TAPPING IN DROPSY.

Dr. J. Solis Cohen treats obstinate cases of dropsy of the legs by tapping. The minute trocars which he uses are made of gold, with openings at the ends and on the sides. They have sharp three-cornered points. In inserting these canulæ they are thrust well into the flesh from below upward and then fastened in posi-

tion by strings tied to their bulbous extremities. These strings are fixed by pieces of adhesive plaster. When the canulæ are fixed in position, slips of rubber tubing are fastened to their bulbous extremities. Where the fluid does not flow freely after the canula is inserted, its flow is started by pulling the rubber tubing between the fingers pressed tightly together and so creating a vacuum. Care is had not to insert the canulæ too far down in the limb, where their presence may produce a sore owing to the weight of flesh above them.

ACNE ROSACEA.

Dr. F. F. Maury treats this condition by the local application of a mercury plaster. The alimentary tract is kept thoroughly open by a methodical course of salines, such as epsom and Glauber salts, and Crab Orchard and Hunyadi János water.

In addition to the mercury plaster as a local application, the following lotion was ordered for the face:

R. Sulphuris sublim..... 3 ij.
Etheris 3 iij.
Vini frumenti..... q. s.
Fiat lotio.

The patient was advised not to drink anything but a little red or white wine, and to be careful to refrain from fish and too much meat.

DILATATION OF THE STOMACH.

The endeavor is made to produce contraction of the walls of the stomach by washing out the ingesta with the stomach-pump, and then rinsing out the stomach with a solution of some disinfectant. The double effect is thus had of cleansing and gymnastic exercise. In inserting the stomach-pump the head of the patient is turned back, and the tube is passed down the œsophagus over two fingers placed in the mouth as a guide. This treatment by the stomach-pump is persevered in for a long time. The stomach is well rinsed out at each sitting. To get rid of remnants of food-emetics are employed. The patient's general tone is sustained by tonics.

PROSTATORRHEA WITH STRICTURE.

Where the stricture is fibrous, it is gradually dilated by means of Dr. S. W. Gross's expanding bougie. Where it is spasmodic and due to hyperæsthesia of the urethra, it is treated by the persevering introduction of conical steel bougies of gradually increasing sizes. If the meatus is unusually small it is slit up.

In obstinate cases of this nature astringent local applications are necessary, such as nitrate of silver, which is applied by means of the *porte caustique* devised by Prof. S. D. Gross. The solid nitrate is the form of silver used. After applying the caustic the patient is kept in bed, his diet reduced, and demulcent drinks administered freely.

If there be constipation, the bowels are kept well open by means of an occasional purge, or the patient takes as a routine medicine, each morning before breakfast, f 3 vi. of Hunyadi János water, or the following prescription, which was first originated by the late Dr. Robley Dunglison:

R. Mag. sulphat..... 3 j.
Potass. bitart..... 3 j.
Ferri sulphat..... gr. x.
Aquæ..... q. s. ad Oij. M.
S. A wineglassful every morning before breakfast.

Another excellent plan which is often pursued is to inject five or six gobletfuls of cold water into the rectum each morning.

The diet provided is nutritious but bland. No coffee, tea, malt or alcoholic liquors, and no greasy or fried foods, are allowed.

For breakfast he is given grits or oatmeal, meat, and bread and butter; for dinner plenty of good rare beefsteak or mutton-chop, with potatoes, tomatoes, etc. Supper should be a light meal.

If there be any anæmia, something like the following is given:

R. Quiniae sulph..... gr. xl.
Tinct. ferri chloridi..... f 3 iv.
Tinct. nucis vomicæ..... f 3 ivss.
Aquæ..... q. s. ad f 3 ijss. M.

S. A teaspoonful four times daily in water through a siphon.

If, on the other hand, there be a tendency to plethora, depressants and purges are employed. The patient takes a sitz-bath every night and morning. He sleeps on a hard mattress, empties his bladder thoroughly before going to bed, and uses only the lightest of coverings.

To keep down the venereal appetite thirty grains of the bromide of potassium are given thrice daily.

Where the condition is obstinate, local blistering is resorted to. A camel's-hair brush is dipped in cantharides and collodion, and a couple of lines are drawn with it first on one side of the raphe of the perineum, and then on the other.

Intercourse is had regularly so that the distended seminal vessels may be relieved, but it is never had at shorter intervals than every two or three weeks.

Where there is functional disease of the heart with palpitation, and flushing of the face, there is nothing better than digitalis in small and long-continued doses. It may be given in any of its medicinal forms.

PARALYSES OF THE RECURRENT LARYNGEAL NERVE.

Nerve tonics, such as strychnia, phosphorus, iron, and cod-liver oil, are used. In the so-called instances of hysterical and nervous aphonia, a sponge-probing is moistened and brought into contact with the vocal cords, which are thus thrown into a state of spasm and so brought together. The same effect is produced in other cases by sprays of ether projected upon the part, or by inhalations of pungent substances.

When all else fails, electricity is employed and is applied directly to the paralyzed muscle.

In using electricity, the plan is to place one electrode directly over the crico-thyroid ligaments outside, and then to carry the other electrode into the larynx and place its point in contact with the cords, or between them. The electrode in the throat is only kept in position a few seconds at a time. Cures are often effected in this way by a single application.

Where intra-laryngeal electric excitation is not possible, the percutaneous method is tried. This consists in passing a current from one side of the neck to the other, and so through the larynx. Or, the patient is placed upon the insulating stool and a spark is drawn from the cricoid cartilage with the knuckle.

In cases of hysterical aphonia a cure is often effected by the mere introduction of the laryngeal mirror, the patient being given to understand that this is the curative procedure.

Another method often tried is to stand behind the patient and grasp the thyroid cartilage between the thumb and forefinger, while at the same time the middle finger is placed under the cricoid cartilage, pulling it up and in front of the thyroid. In this way the vocal cords are stretched and made tense, and so caused to vibrate by means of the inspiratory current.

Progress of Medical Science.

BILATERAL NEURETINITIS DESCENDENS IN DIABETES MELLITUS; TUMOR OF THE BRAIN.—Dr. Grossmann, of Buda-Pest, reports a case of diabetes mellitus complicated with bilateral neuritis descendens, with consecutive amaurosis, in which the autopsy revealed a tumor as large as a walnut, situated at the base of the brain just anterior to the pons. The tumor was firmly adherent to the dura mater, and involved the hypophysis, the chiasma, and neighboring parts of the brain as far as the gyrus callosomarginalis. The pia was thickened and the fourth ventricle was filled with a pseudo-membranous mass. Microscopically the tumor consisted of elements belonging to the connective tissue group, almost all the varieties of that group—from mucous tissue to dense fibrous tissue—being represented; the greater part of it was made up of blood-vessels with immensely thickened walls. It was impossible, however, to class the tumor with any of the special forms of morbid new growths. The diagnosis of sarcoma could not be made because of the varied forms of the cells and of the mode of development, the brain substance being directly involved in the new growth, and not merely pushed aside by it. It was not a glioma, because the new growth sprang from the connective tissue of the blood-vessels, and not from the neuroglia. It seemed more properly to constitute an intermediate form of tumor produced by the concurrence of vascular new growth with chronic inflammation.

During life the probable existence of a cerebral lesion had been admitted, but the direct diagnosis of a tumor of the brain was not made on account of the absence of symptoms pointing to that affection. In all probability the cerebral lesion constituted the original affection, the diabetes being consequently symptomatic of it. This view seems to be especially favored by the fact that a pseudo-membrane nearly a millimetre in thickness was found filling the fourth ventricle. The bilateral amaurosis was due partly to the direct pressure of the tumor on the chiasma and the optic nerves and tract, and not solely to the original obstructive neuritis. During life the urine had contained albumen, but as the autopsy revealed no nephritis, the pathological changes in the fourth ventricle and the neighboring parts of the brain produced by the tumor may be regarded as the cause of the albuminuria as well as of the mellituria. In the treatment of the case, Carlsbad water, carbolic acid and salicylate of soda had been employed. The quantity of sugar excreted diminished under their use, but it never disappeared entirely from the urine.—*Berliner klin. Wochen.*, March 10, 1879.

CUTANEOUS BILIARY FISTULÆ—EXTRACTION OF NEARLY A HUNDRED CALCULI THROUGH THE ABDOMINAL WALLS.—In July, 1876, Dr. Anger, of Menilmontant, was called to see a woman, aged 63 years, whose abdominal walls were, so to speak, riddled with fistulous openings, which led into large subcutaneous cavities. The openings discharged freely a greenish yellow pus resembling the bile in color. The patient had suffered for over thirty years from violent attacks of biliary colic recurring at irregular intervals; sometimes she would be almost free from them for years, and again they would come on very frequently. In the intervals she complained almost constantly of a feeling of weight in the right side. In February, 1876, she had a series of attacks of colic, accompanied by constipation and vomiting, complete loss of appetite, tympanites, and great difficulty in

walking. In the early part of April a red and painful swelling appeared on the right side, a little above the umbilicus; this swelling soon spread over the entire lower portion of the abdomen and extended to the right leg. On April 15th the tumor broke suddenly with a noise like that produced in opening a bottle of champagne, and a jet of watery fluid with a pronounced fecal odor, escaped. On the following day her bowels moved for the first time in fifteen days. Toward the end of April several black spots appeared on the lower portion of the abdomen; these were soon transformed into fistulous openings, which gave exit to a blackish magma containing a quantity of small biliary calculi. When Dr. Anger was called to the patient he found the abdominal walls red, indurated, painful to the touch, and presenting four fistulous openings, through which the sound entered into large subcutaneous cavities. Through the upper opening biliary calculi could be felt at a depth of about five centimetres. This opening was dilated with tents of laminaria until the finger could be introduced with ease, and about a hundred biliary calculi were then removed with ordinary dressing-forceps. The ductus choledochus was found to be almost as large as the little finger. After the removal of the calculi the fistulous canals and the cavities were freely laid open and an alcohol dressing was applied. After the operation the fever disappeared, the appetite returned, and the wounds gradually, but very slowly, healed. There has been no return of the colic since the operation, and the patient now enjoys better health than she has at any time since she was twenty-one years of age. Dr. Anger ascribes the formation of the calculi in this case to the excessive use of butter.—*La France Médicale*, April 16th, 1879.

ON THE ALBUMINATE OF IRON.—In the wards of Prof. Demarquay, in Paris, the albuminate of iron has been employed with much success in the treatment of chlorosis and of the anæmia of chronic uterine disease. Under his direction a series of experiments were undertaken to determine the absorbability of the ferruginous preparations. The results showed, first, that the discoloration of the fæces is not proportionate to the quantity of iron excreted. Certain salts of iron which are discharged almost entirely, undergoing little modification in their passage through the intestine, do not color the fæces, while others, for example the citrate, of which the greater part is assimilated, color the fæces decidedly. Second, that the quantity of iron absorbed stands in general in a direct ratio to the solubility of the salts ingested. From this point of view of assimilation, the salts formed by combination with organic acids, such as the citrate, the tartrate, etc., and above all the albuminate, must be placed in the front rank.

In a case of extreme anæmia resulting from repeated hemorrhages that were due to a uterine polyp, the albuminate of iron rendered the most signal service. The patient was unable to retain any other form of iron on her stomach, and seemed to be almost at the point of death. The albuminate of iron was ordered in combination with the syrup of bark (*liqueur de Laprade*); the first two spoonfuls were retained with difficulty, but the third was well borne. On the eighth day the patient was able to eat solid food, and the paleness was less intense. Fifteen days later the microscope showed a marked increase in the number of red blood-globules. She was sent to the country, and in a month menstruation had reappeared, and the patient presented the appearance of perfect health.—*Gazette Obstétricale*, March, 1859.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 12, 1879.

DUTY ON CINCHONA ALKALOIDS.

THE act for removing the duty on cinchona alkaloids has been passed by both houses of Congress, and presumably will become a law. With such a state of things the medical profession is well pleased, inasmuch as the price of quinine will be reduced and the consumer will have less of a tax to pay to the manufacturers. Looking upon the question from the standpoint of its general merits, it is difficult to conceive why any opposition should have been raised against the measure. As predicted, however, several of the large manufacturers not only viewed it as a calamity, but asserted with a degree of positiveness intended to alarm the public, that they would cease to place the drug upon the market. The more direct source, however, from which the opposition emanated points very plainly to a personal interest in the taxation of quinine which can hardly be considered of ultimate advantage to the consumer. We do not see how this can be denied. For, the minority which led and sustained the opposition, and availed themselves of parliamentary tricks to defeat the bill, were too inconsiderable to weigh in the balance against the general sentiment of the House, or impress the majority of the members in favor of the few monopolists whose interests were so openly advocated.

Notwithstanding the assumption on the part of these manufacturers, it is fair to presume that they will not attempt, and cannot stop the supply.

The removal of taxation may decrease their profits, but there will still remain for them an abundance of remunerative margin for carrying on a profitable business. But, as has been intimated, suppose they do stop manufacturing the alkaloids. We believe the result will simply be that the cinchona barks they use will either remain in Europe or go directly there, and that the same quantity of the alkaloids will be accessible at lower prices. Before the tax was removed the manufacturers here were enabled to pay

higher for bark than the same would bring in Europe, and the higher prices paid here were transferred to the cost of the consumer in the product. In that manner the manufacturers here became injurious competitors with the cheap makers in Europe, without giving any adequate reason why the alkaloids cannot be made as cheaply in this country as elsewhere. It now remains to be seen whether or not the manufacturers will cease work. But if they do, we believe the law of demand and supply will furnish to the consumer all his necessities will require.

THE HOSPITAL BIBLE, FRUIT, AND FLOWER MISSION.

A FEW weeks ago there was inaugurated in East Twenty-sixth Street, which may be said to be the medical quarter of the city, a new auxiliary to the work which is being carried on by medical men in the hospitals. Certainly, medical men are the chief workers in all institutions for the care of the sick; but what would they be without nurses? What would they be without the aid of those who care for cleanliness in the wards where lie the helpless and the sick? This institution, of which we have spoken, is to be the headquarters of the mission to the sick in the hospitals; a mission which is to care, not for their necessities, but to see to it that the sick poor secure some of the luxuries of life. We may possibly be criticised if we continue to say, not the necessities, when it is remembered that it is a Bible as well as a fruit and flower mission. But, as medical journalists, we are obliged to leave out of account, to a large extent, the religious aspect of the mission, much as all men, who wish well for their kind, may rejoice that truth and consolation, which all appreciate, are brought to the suffering.

The object of the ladies who have founded and carry on this enterprise is to visit the sick and provide them with the delicacies which hospitals cannot furnish, and also to surround them with the fragrance and beauty of flowers. Besides this, there is religious instruction for those who are willing to accept it.

The late civil war developed many such instrumentalities for the alleviation of the sufferings of the sick, as that of which we are now speaking. Among the most useful employment of the volunteers who visited the hospitals during that period was that of letter-writing for the patients. Nurses are proverbially overworked, and letter-writing in their hands is either hastily or poorly performed, or not at all. At the outset of our commendation of what the ladies of the Fruit and Flower Mission are doing, we would venture to suggest to them for their consideration that they add letter-writing to their other beneficent work.

We are inclined to think the influence of mind over matter is sometimes underrated by medical men. The true physician will always be careful to favor cheerfulness in the mind of his patient. The element

of hope and faith, and the conviction that one is being cared for by some one else, sometimes do very much even to assist a fractured limb or a wound to heal, or to abate the violence of a fever. As an auxiliary, therefore, to the great work in which most of our readers are engaged—that of lengthening life and mitigating human suffering—we hail this one, which has now been through three years of existence, and which may be said to be firmly established. It should be added that these Christian ladies propose to enlarge the work they have been doing by caring for the throng of so-called convalescents who are daily deposited upon the wharf of the Board of Charities and Correction. The importance to these of the coffee-room, which is connected with their mission, can hardly be overestimated. There are dozens of drinking-shops waiting for the patient who has been discharged from Bellevue and Blackwell's Island, and it is well that there is at least one place where they may eat and drink that which will not in any manner provoke a new attack of the malady from which they have been suffering, or cause another accident which will render them subjects of the public bounty.

PROF. WILLIAM H. VAN BUREN, M.D., LL.D.

It will be a subject of congratulation to the many friends of Prof. William H. Van Buren to learn that he has been the recipient of the honorary degree of LL.D. from Yale College. This is the first time that such a degree has been conferred upon a medical gentleman by this institution, and it is peculiarly gratifying to the profession that Prof. Van Buren should be the one chosen for such a distinction. He has ranked for many years as one of the leading surgeons of the country, and his attainments as a medical scholar, as an author and teacher, are acknowledged to be of the highest order. With a full appreciation of the motives which actuated the trustees of Yale in conferring the degree, we scarcely know which is the more honored, the giver or the receiver. In view of the happy choice, it behooves us to congratulate both.

DEATH IN THE PROFESSION.

THE *Lancet* very feelingly and appropriately refers, in a recent issue, to the circumstances attending the death of Drs. Murchison and Tilbury Fox. Both were similarly afflicted with a mortal disease, and both were aware of the fact during the latter years of their lives. Yet, notwithstanding this, they worked faithfully in their profession to the last, and none but their most intimate friends knew of the dreadful clouds which were hanging over their inner lives. None but themselves knew of the terrible forebodings which were ever present to them in the hours of their greatest successes, and during the times when the hope for a prolonged period of usefulness would reach an agony of spirit never to be appreciated save by those who likewise suffer. Many in our ranks at present are carry-

ing about with them the dreadful consciousness of a mortal disease, are walking with calm desperation under the very shadow of death and are manfully striving to forget their doom in the excitement of work. The dreadful knowledge of an incurable disease is one which every physician strives to spare his patient. It is a burden so grievously borne by the ordinary run of mankind that some ray of hope is always left in the mind of the sufferer as he leaves the consulting-room. With the medical man who similarly suffers, the case is entirely different. As the *Lancet* truly and forcibly says: "But what blight can fall on the consciousness of the layman, what withering hope be felt within the mind that only partly realizes its own danger, compared with that which crushes the spirit and renders the heart faint in the breast of the well-instructed and experienced pathologist, who from the moment he hears from the lips of a trusted friend, or by his personal skill discovers the truth about his condition, foreknows his own doom." To avert it he knows is an impossibility, and yet with a fortitude which amounts to the sublimest heroism, calmly performs his duties to the last, forgetting his own suffering in the desire to alleviate that of his brother. We have in mind several of our friends who might be named in this category. One in particular is forced upon our recollection in this connection. It may not be known to all that the late Dr. Cammann carried with him for years the conviction of the existence of valvular disease of the heart. He made the diagnosis himself shortly after an accident which caused the lesion, and kept the secret from his family for many years, until shortly before his death; and yet during all the long period, with the constant reminder of his disease, which night and day murmured its existence to his cultivated ear, he made his reputation as the first auscultator of his day by heroically facing his enemy in the study of cardiac troubles. As we have already said, we might multiply examples, but it is sufficient to know that there are many, and that each and all serve to show that there is a compensation for the greatest of afflictions; that the severest trials develop the finest characters; and that even the omnipresent warnings of death can be lost in the calm determination to do the best we can while living, leaving the future in the hands of a kind Providence. The study of such examples is profitable for all, and the lessons which we may learn from them should be taken to heart.

COMBINATION OF CINCHONA ALKALOIDS WITH OPIUM.—Dr. D. P. Skillern claims: 1. This combination aborts the paroxysm of intermittent fever more certainly, and the cure of the disease follows more surely and rapidly than when the alkaloids are given uncombined. 2. Only half the dose of the alkaloids are required. 3. It relieves the associated painful sensations. 4. Exemption from headache, tinnitus aurium, etc. 5. It enables the stomach to retain the quinia. 6. Large and continuous doses of quinia may be given, without producing cinchonism, if combined with opium.

Reviews and Notices of Books.

DISEASES OF THE THROAT AND NASAL PASSAGES. A Guide to the Treatment of Affections of the Pharynx, Esophagus, Trachea, Larynx, and Nares. By J. SOLIS COHEN, M.D., Lecturer on Laryngoscopy and Diseases of the Throat and Chest in Jefferson Medical College, Philadelphia, etc., etc., etc. Second edition, revised and amended. With 208 illustrations. New York: William Wood & Co. 1879.

THE second edition of Dr. Cohen's work on Diseases of the Throat appears in the form of a well printed, bound, and illustrated volume, containing 750 pages. The changes made consist in the suppression of some of the old material, modifying and augmenting what has been retained, adding new material, discarding old and introducing new illustrations, and omitting entirely the bibliography. The space occupied by the latter has been filled with clinical material, and, now that there is no lack of indicators to sources of information in this branch of professional study, this change is a commendable one. Special manipulations, operations, and therapeutic measures have been described in the place in which allusion has first been made to them, and do not appear in separate chapters. This plan possesses certain advantages readily appreciated by the reader, and we think adds to the clinical interest of the book. The nomenclature from the most recently published edition of the U. S. P. has been employed. Into the present edition have been substantially incorporated the author's lectures delivered in 1872, 1873, and 1874, before the College of Physicians of Philadelphia, and the classes in Jefferson Medical College, and published in the *Philadelphia Medical Times*, the *Philadelphia Medical and Surgical Reporter*, and the *New York Medical Record*. Dr. Cohen is a clear writer, and has treated his subject in a manner which will be acceptable to the profession. The important changes and additions seen in the present edition render the first edition more ornamental than useful. The book in its present form will make a valuable text-book in this department.

POTT'S DISEASE: ITS PATHOLOGY AND MECHANICAL TREATMENT, WITH REMARKS ON ROTARY LATERAL CURVATURE. By NEWTON M. SHAFFER, M.D., Surgeon in charge of the New York Orthopædic Dispensary; Orthopædic Surgeon to St. Luke's Hospital, New York, pp. 82. New York: G. P. Putnam's Sons. 1879.

THE author of the volume before us does not state for what purpose it was prepared; he certainly did not design it for a practical work on Pott's disease, nor can it be called a pathological treatise. It is divided into two chapters: one on pathology, and one on the treatment of Pott's disease. There is nothing on its symptomatology, except what is interwoven with its pathology. Our author states that he prefers the name of "spondylitis" to any other—why, he does not state. It seems to us an error, both from its derivation—"spondylos," a vertebra, and "itis," inflammation—and its accepted use. Spondylitis is used to designate an entirely different disease, namely, an acute inflammation, *not* of the bodies of the vertebra, but of the *lateral masses*; rheumatic in its character, in which the outlying processes are locked together, as it were, by outgrowth from the periosteum, and is *not* accompanied by any *destruction of bone*. An acquaintance with the work of Julius Braun, published in Hanover in 1875, and a reference to the files of the

"*Journal of Nervous and Mental Diseases*," we think would have prevented the error that our author has made, as well as that of the distinguished professor from whom he differs so much.

By spondylitis, our author includes all diseases of the spinal column, usually denominated Pott's disease.

He states on page 1, that "I have never seen nor obtained the history of an idiopathic, *acute* spondylitis;" while on page 23 it is stated, "acute inflammation of any of the appendages of the vertebral bones *are* quite rare, and I have only seen a few cases. Two of them, I am inclined to believe, were lesions of the intervertebral cartilages." Which statement does our author wish us to accept? On page 3 it is stated, "I have never had an opportunity to examine post-mortem the pathological condition of the vertebral column before the appearance of deformity;" while a few lines lower down on the page, he states, "In the absence, among authors I have consulted, of other important facts bearing upon this point, and based upon *actual* and very *early pathological** exploration, I propose, with the aid I have derived from them, and from my own experience, both *pathological* and clinical, to consider the lesion from these standpoints." The exact meaning of the writer in these two contradictory statements we are unable to make out. He must have made a very superficial examination of "the very considerable number of works upon spinal deformity," which he informs us he possesses (page 32), not to have ascertained the fact that the disease may go on to a fatal termination without the development of *any* deformity, and that there are many reports of post-mortem examinations on record illustrating this fact. We would remark in passing, that a statement of what his "pathological experience" had been, would not have been out of place. On page 5, he says, in speaking of reflex spasm, "this reflex muscular spasm is due to an irritation, *peculiar* in its character, of the peripheral nerve, etc.,"* We should like to inquire what there is "*peculiar*" about it, and in what it differs from other nerve irritation, and how does he ascertain the fact?

He divides "Pott's disease, or chronic spondylitis," into four stages, namely: prodromal, one of pain, one of deformity, and one of abscess. He says, "I was tempted to make a fifth, namely, paraplegia, but this condition is so clearly symptomatic, and in reality occurs so rarely *under intelligent treatment*,"* that I have classed it among the symptoms of any of the stages;" and in another portion of the volume states that paraplegia may occur without *any* deformity. We should like to inquire what the term "intelligent treatment" means, for we have seen cases in which paraplegia has come on, under what the author would recognize as "intelligent treatment." An acquaintance with the writings of Charcot, Michaud, and others, would have prevented his making a statement of this kind. The fact that paraplegia may come on before there is any deformity, proves that it is not dependent on the amount of disease, but rather on the location of the lesion in the bone or disc.

He divides the disease into a suppurating and non-suppurating variety (caries sicca), and states on page 9 in regard to the latter, "This extremely interesting condition I have seen *very** often clinically, both in the spine and large joints. . . . For reasons which I shall state hereafter, I think it very rare that this condition of caries sicca is seen in the vertebral column after death;" and on page 11, "that the general failure of vital force which precedes death, produces

an effect upon these fungous granulations which results in a rapid breaking down of the neoplastic proliferations."

We would like to know how he proves that there is no pus about a diseased vertebra.

On page 414 of Billroth's Surgical Pathology will be found a similar statement, and almost in the same words as the latter portion of the above quotation.

On page 25 he states: "I was the *first* to call attention that a *chronic* disease may exist in any given articular tissue which is sparsely supplied with nerves, or which is devoid of neural elements, without presenting any *subjective* symptoms which are of sufficient importance to attract the attention of the patient."* How can you have pain in a tissue when there is no nerve? And on page 4 he makes the following quotation from Billroth: "*There are cases where the bone is extensively destroyed without any pain.*"* This was written by Billroth in 1869.

On page 28, he states "that reflex muscular spasm in chronic joint disease always indicates osteitis . . . Its presence is due to a direct pathological cause, a fact I was the first to point out." Barwell, in his work "On Diseases of Joints," page 244, says: "Pathology shows us that in synovial disease no especial action is produced among the muscles of the limb until the bone underlying the cartilage becomes affected . . . and such contraction is produced by a morbid form of *reflex action* carried from the nerves supplying the joint to the muscles." This was written in 1860.

On page 14 he makes some remarks on rotary lateral curvature, and claims he was the first to point out the fact that "chronic synovial inflammation is not accompanied to any great extent by muscular spasm." On page 18 he says: "I am prepared to state that rotary lateral curvatures has a specific pathological cause—not merely a mechanical etiology;" but he has strangely forgotten to state what the "specific pathological cause" is.

On page 13 he says: "Septicæmia and amyloid degeneration are the most frequent causes of death in the suppurative variety, while tubercular meningitis has only too frequently, in my own experience, followed upon the dry caries." It is a well-established fact in pathology that tubercular meningitis is usually secondary to suppurating foci in other portions of the body, and rather militates against the theory of the frequency of caries without suppuration. There are other points that we should like to refer to as inconsistent as those already mentioned, but space forbids. We cannot close this portion of our review without drawing attention to the fact that he has failed to give the history of a single post-mortem appearance in illustration of the condition "which he has seen very often clinically . . . and on several occasions after amputation and excisions of the larger joints."

The second chapter is on the treatment. He condemns the plaster-of-Paris jacket, on page 48, "as filthy, and failing to accomplish the object for which it is applied," yet, notwithstanding its filth, he advocates the use of a jacket, in a modified form, for the region included by the lumbar and five last dorsal vertebrae, and states: "I have found a modification of Taylor's antero-posterior support secured with a plaster zone." He describes the application of this support fully; but only states in a general way his mode of managing disease in other portions of the spine. In fact, there is nothing practical about this portion

of the volume, and one lays it down knowing but little more about the management of a case of "spondylitis" than before he took it up. The only novelties in the book are his "modified" plaster jacket, and the ball-and-socket-joint for Taylor's chin-piece, both of which are improvements. We notice an absence of any reference to the works of others in this field of surgery, except in a slurring style, and would suggest that "a mechanical demonstration" of the etiology of lateral curvature, illustrated in the dried and mounted vertebral column, and arranged with springs," etc., has the merit at least of originality about it, and is more satisfactory than the mere remark that "I am prepared to state, etc." not supported by a single case bearing on the subject. Really, the best part of the volume is the quotations from Billroth, and these form no small part of it.

What the profession demand of one writing a book on any special subject is, that it shall be practical, and that the writer should state clearly the facts from which he draws his conclusions. Especially is this looked for from one who evidently prides himself on his pathological knowledge and his acquaintance with the literature of the subject on which he writes. We are sorry that we find so much to find fault with, and so little to praise, in a book written by one who has had an experience of "fifteen years" in the treatment of spinal deformities.

POSOLOGICAL TABLE: Including all the Official and most frequently employed Unofficial Preparations. By CHAS. RICE, Chemist Department of Public Charities and Correction, New York. Revised and approved by members of the Medical Boards of Bellevue and Charity Hospitals. New York: William Wood & Co., 27 Great Jones Street. 1879.

THIS compend, constructed for the use of physicians and apothecaries, gives the names of medicines, the definitions of crude drugs according to the present state of our knowledge, and the average adult doses used in regular practice. From an appended table the proper average doses for children can be easily ascertained. The doses are given in the usual apothecaries' system, but rules and tables have been appended by which change into the decimal quantities of the metric system is readily accomplished. The medicines are arranged in alphabetical order. The author designed to make this book a convenient guide, and we believe he has been eminently successful.

GENERAL SURGICAL PATHOLOGY AND THERAPEUTICS IN FIFTY-ONE LECTURES. A text-book for students and physicians. By DR. THEODOR BILLROTH, Prof. of Surgery in Vienna. Translated from fourth German, and revised from eighth edition, by CHARLES E. HACKLEY, A.M., M.D., Physician to N. Y. Hospital. New York: D. Appleton & Co. 1879.

THE subjects discussed in this book have such a practical bearing, not only by themselves, but in relation to each other, that no one is surprised that success has attended the labors of the author, and that his work has reached the eighth edition. The plan of the work is such as enables the author, in the midst of the discussion of a pathological question, to apply a principle of treatment, of prognosis, and of diagnosis. This arrangement invests the study of its contents with great interest, and helps, in a very direct and practical way, in studying the fundamental principles of pathology. In this respect it may be said to supplement the various works on general surgery, by giving the every-day experience of a thorough and practical teacher at the bedside and in the post-mortem room. As the interest in true pathology increases, so

* Italics ours.

will the popularity of this work. The English translation is that of the sixth German edition, but is made to correspond with the eighth German by the addition of an appendix, which contains the extra matter.

Reports of Societies.

THE AMERICAN NEUROLOGICAL ASSOCIATION.

Fifth Annual Meeting, held in the City of New York, June 18, 19, and 20, 1879.

(Continued from p. 17.)

THURSDAY, JUNE 19TH.—SECOND DAY—AFTERNOON SESSION.

THE Association was called to order at 2.30 P.M. by the President.

The minutes of the previous day were read and approved.

REPORT FROM THE COUNCIL.

The Council reported that it had examined the papers presented by the two candidates for membership, and recommended that they be elected members by the Association.

On motion, the By-Laws were suspended, and the Secretary was then instructed, by motion, to cast an affirmative ballot for Drs. W. J. Morton and R. W. Amidon, of New York.

AMENDMENT TO THE BY-LAWS.

The amendment to the By-Laws offered by Dr. Grey was adopted by the Association.

DR. HAMMOND offered an additional amendment as follows: "The presentation of a written neurological communication shall be deemed a valid excuse for absence from an annual meeting of the Association."

COMMITTEE ON NOMINATIONS.

The President announced the following Committee on Nominations: Dr. H. D. Schmidt, of New Orleans; Dr. E. C. Spitzka, of New York; Dr. A. D. Rockwell, of New York; Dr. J. J. Putnam, of Boston; and Dr. J. C. Shaw, of Brooklyn.

PRESENTATION OF CASES.

DR. A. D. ROCKWELL, of New York, presented cases illustrating two important points in electrotherapeutics: 1. The necessity for and the good results which come from perseverance in the use of electricity in seemingly hopeless cases of infantile paralysis. 2. Differentiation in the use of galvanism and faradism for the relief of pain.

In the neuralgic case the faradic current was used after various forms of treatment had been adopted without benefit, and after four applications recovery was nearly complete, the disease having existed six months. It was a case of neuralgia in which firm pressure did not produce pain, while slight pressure produced great pain. In differentiating whether galvanism or faradism should be used for the relief of pain, the effects produced by pressure were most useful guides. While, however, true neuralgia and pain generally yielded more readily to the galvanic than to the faradic current, the latter was in some cases invaluable, and yielded good results when galvanism was useless. As a general rule, firm pressure well borne indicated the use of faradism.

With reference to the case of infantile paralysis, DR. MILES asked if voluntary movements had returned to the muscles.

DR. ROCKWELL replied that they had; that they were marked, and that they had returned after an absence of six months, after all normal recovery had taken place.

DR. MILES remarked that he had succeeded in such cases in restoring galvano-muscular contractility, but not voluntary action.

WHICH POLE SHALL BE EMPLOYED?

DR. L. C. GREY, of Brooklyn, asked which pole was used for the relief of pain.

DR. ROCKWELL replied that he used the descending current.

DR. HAMMOND remarked that he had reached the conclusion that it did not make any difference with regard to which pole was employed, and that the one was as good as the other.

DR. ROCKWELL remarked that to reach correct conclusions upon this, as upon other interesting points, considerable observation was necessary. He had seen cases in which, after obtaining very good results from the use of the descending current, he had, in order to hasten the improvement, used the ascending current, and all the pain returned.

DR. HAMMOND remarked that he had seen such a result from the continuous use of one current, either the ascending or the descending.

DR. GREY remarked that his experience had led him to the conclusion that it made but little difference which pole was employed, except about the eye or face. Upon the face he had found a difference in the effect produced by using different poles, and he had explained the difference by the fact that in physiological experiments and therapeutical uses of electricity the conditions were essentially different; in the one the nerve was laid bare, while in the other it was more or less deeply covered with tissues. When deeply covered, the electricity became so diffused that its direct action upon the nerve was questionable, while in regions in which the nerves were less deeply covered the conditions present in physiological experiments were more closely approximated. He then referred to a case in which so long as he used the descending current there was an amelioration of symptoms.

DR. BEARD remarked that the most interesting feature of Dr. Rockwell's case was the fact that the faradic current gave relief to the pain. It had been stated for such forms of disease we must use the galvanic current exclusively. In the cases of sciatica reported by Dr. Gibney, of New York, that idea was involved, and it was a popular opinion in Europe at the present time; but it was erroneous.

The suggestion made by Dr. Rockwell with reference to pressure as an indicator in differentiation as to the use of galvanism or faradism to relieve pain, was perhaps a good general guide; but it was not applicable to all cases.

With reference to the direction of the current, theoretically, there should be a difference, but, practically, he was not able to make the differentiation.

DR. E. C. SEGUIN thought we could be guided by the polar test, according to the instruction given by Erb, with reference to the current to be employed. With regard to relief of pain, his experience had been favorable to the sedative effects of the anode, provided a mild current was used, and to the exciting effect of the cathode.

DR. BEARD remarked that, in a majority of cases,

pain was relieved when a sufficiently mild current was used.

For the first four or five years of his practice he always knew what pole he employed, but of late years, in very many cases, he did *not* know, and he was not able to recognize any change in the results of his electrical treatment.

DR. W. J. MORTON, of New York, remarked he felt quite sure that, in neuralgia of the trigeminus the positive pole reduced pain in cases in which the negative pole produced no marked effect.

The polar difference could be distinctly seen when the poles were kept sufficiently long in contact with the tissues. Dr. Morton then referred to the fact that ulcers healed rapidly when the positive pole was applied to their surfaces, while they became deeper under the influence of the negative pole, and besides several small superficial ulcers might be produced by the negative plate.

DR. GREY thought there could be no question but that there was a physiological difference between the poles, but he failed to see that there was convincing evidence to prove any therapeutical difference.

DR. HAMMOND thought Dr. Grey would change his opinion when he witnessed the result of electrical treatment of ulcers.

DR. GREY remarked that he had used electricity in the treatment of abscess, and that he had not seen any difference in the results obtained by the use of different poles.

DR. HAMMOND remarked that he knew there was a therapeutical difference between the positive and the negative poles, and that fact he first established to his own satisfaction in a series of cases of ulcers treated by galvanism at the Baltimore Infirmary several years ago. He knew that a silver (*positive*) plate placed upon an indolent ulcer, with a zinc plate (*negative*) above, facilitated healing; whereas, applied in the opposite manner, the condition was invariably aggravated. The single pair of plates gave the least possible intensity.

DR. GREY remarked that he did not question the difference in the results in the treatment of ulcers; but he should not, from that fact, argue with regard to the therapeutical value upon the unbroken skin.

DR. BEARD thought there was no chance for dispute with regard to the effects produced upon ulcers by different poles, the positive being the more efficacious for healing purposes. He believed there was one thing sure—namely, that in all countries where electricity was used, there was less and less tendency to insist upon polar use. The best writers took the view that the practical difference between the positive and negative pole was not so much as formerly supposed.

DR. GREY remarked that he did not believe there was any difference with regard to the direction of the current; and that, if there was a difference it was between the poles.

DR. MILES remarked that he had seen unmistakable difference between the two poles in allaying pain. In the treatment of myalgia occurring in his own person, he had found that the positive pole gave him relief much sooner than the negative.

INFANTILE ENCEPHALITIS FOLLOWED BY ATHETOTIC SYMPTOMS.

DR. E. C. SPITZKA exhibited a patient who had athetotic symptoms, as he believed, the result of infantile encephalitis.

GLOSSO-LABIO-LARYNGEAL PARALYSIS.

DR. HAMMOND presented a patient suffering from

the above disease. The treatment was, phosphide of zinc, one-tenth of a grain, t. i. d., and extract of nuxvomica, one-third of a grain, t. i. d. Electricity was also used; and, while the patient was certain that he was improving, Dr. Hammond thought his condition would never be substantially improved.

MYELITIS WITH THE FORMATION OF CAVITIES OR VACUOLES IN THE GANGLION CELLS IN THE ANTERIOR HORNS OF THE SPINAL CORD.

DR. R. T. EDES, of Boston, read a paper in which was given the clinical history of a case that developed, orderly and symmetrically, symptoms referable to the spinal cord. There was symmetrical atrophy of the legs below the knees, and the arms below the elbows, and the left pupil was larger than the right. The case was of a little less than four months' duration, and on microscopical examination of the cord the white substance was found normal in every respect. In the gray matter the only change consisted in the presence of large polygonal spaces or vacuoles in varying numbers in the anterior horns. The processes of the ganglion cells seemed slightly changed in places—shrunk and shortened. The lesion was found in the cervical enlargement, in the dorsal region, and in the lumbar enlargement. The specimens seemed to illustrate that parenchymatous changes might take place independent of blood-vessels or neuroglia.

DR. PUTNAM remarked that he had seen a case closely resembling Dr. Edes's in clinical history, except that the fever was higher, the temperature rising as high as 104°–105° F. There was the same progressive paralysis, and, on microscopical examination, spots of softening were found in the lenticular ganglion upon the left side. In the cervical region there was an evident change in the ganglion cells consisting in large collections of fat. He thought that it was possible, if the case had lasted longer, the change might have gone on to the formation of vacuoles.

DR. E. C. SEGUIN referred to specimens in his possession, of acute myelitis, in which the symptoms of transverse and total myelitis were developed within twenty-four hours. Death occurred at the end of the sixth or seventh week, and on examination he found extensive softening of the lower dorsal cord, which microscopically exhibited no special lesion, but in sections below, the first of moderate worth, there were found vacuoles, such as described by Dr. Edes.

He thought the clinical history of Dr. Edes' case belonged to polio-myelitis more nearly than anything else.

DR. SCHMIDT, of New Orleans, thought the so-called vacuoles in the specimens were globules of fat. In some of the ganglion cells granular degeneration was present, which commonly preceded the formation of free fat-globules.

The Secretary read a communication from Dr. J. S. Jewell, of Chicago, expressing his regret at not being able to be present, because of serious sickness in his family.

DR. J. J. MASON exhibited micro-photographs illustrating

THE HISTOLOGY OF THE MEDULLA OF THE ALLIGATOR, after which the Society adjourned, to meet at 8.30 P. M.

SECOND DAY—EVENING SESSION.

The Association was called to order by the President.

The proceedings began with remarks by DR. WM. A. HAMMOND, of New York, on

METALLO-THERAPY.

He referred to its history, spoke of his own work in connection with the subject, and expressed his great surprise that a man of such scientific training and experience as Charcot should have lent himself to so vile a humbug. Dr. Hammond showed disks of various metals which he had used in his experiments, and asserted that the one of tortoise-shell was the most efficacious, and was the one used most.

The subsequent discussion of the matter showed it to be the unanimous feeling of the Society that the claims of metallo-therapy were unfounded and absurd.

In view, however, of the fact that it was not yet universally condemned by physicians, and even had the support of some eminent men, it was voted that a committee be appointed to investigate the matter, both in its medical and psychological phases.

Dr. W. J. MORTON, of New York, then read a paper upon the

TOXIC EFFECTS OF TEA.

The subject, he said, was best studied by examining that class of men, such as tea-tasters, who habitually took tea in large amounts. It was, however, not easy to obtain extensive data concerning those men, for they feared if the facts become known it might injure their business. Five cases, however, had been collected, and those, together with experiments performed by the writer upon himself, formed the basis of the paper.

The bad effects of tea-tasting were known and recognized by the tea-tasters themselves, and few could carry on the business many years without breaking down. One tea-taster estimated that he got about half a pound of tea into his system during a day. It has been said that the symptoms from which tea-tasters suffered were due to alcohol or dyspepsia, but the facts collected showed the contrary.

The writer then gave the history of the cases referred to, and of the experiments upon himself.

The following is a résumé: First, as to the immediate effects of moderate doses, there was in the cases observed, an elevation of pulse, increase of respiration, agreeable exhilaration of mind and body, a feeling of contentment and placidity, an increase of intellectual and physical vigor, with no noticeable reaction.

The immediate effects of an excessive dose were rapid elevation of pulse, marked increase of respiration to the extent of about one-third, increase of temperature, no period of exhilaration, but immediate and severe headache, dimness of vision, ringing in the ears, dulness and confusion of ideas. Following that was a severe reaction; exhaustion of mind and body, tremulousness and "nervousness," and dread of impending harm, that could not be relieved by taking more tea.

The effects of continued doses were a continuance of the tremulousness, extreme susceptibility to outside impressions, constipation, diminution of urine, and marked influence on the metamorphosis of tissue as shown by the diminution in the amount of urea. Thus, in the week during which the writer was taking toxic doses of tea the amount of urine fell from $f\frac{3}{4}$ xl. to $f\frac{3}{4}$ xxii. per day; and in the same time the urea fell from gr. 591 to gr. 422 per day. The sulphates, phosphates, and chlorides were increased.

The results as regarded the diminution of urea agreed with previous experiments, but showed the influence of the tea much more strikingly.

From the study of the drug's action, Dr. Morton arrived at the following conclusions:

1. That with it, as with any other potent drug, there was a proper and an improper use of it.

2. That in moderation it was a mild and pleasant stimulant, followed by no harmful reaction.

3. Its continued and immoderate use led to a very serious group of symptoms, such as headache, vertigo, ringing in the ears, tremulousness, "nervousness," exhaustion of mind and body, with disinclination to mental and physical exertion, increased and irregular action of the heart, and dyspepsia.

4. The mental symptoms were not to be attributed to dyspepsia.

5. It diminished the amount of urine, and retarded the metamorphosis of tissue.

6. Many of the symptoms of immoderate tea-drinking were such as might occur without a suspicion of the real cause.

The paper being open for discussion, Dr. J. J. PUTNAM, of Boston, asked whether the symptoms of weakness, nervousness, etc., which followed the taking of large doses were those of reaction, or were the continued toxic effects of the drug.

Dr. MORTON thought that they were the latter.

Dr. HAMMOND referred to a case of his where the patient suffered intensely from neuralgia brought on, he believed, by tea-drinking.

Dr. MILES asked if the tea-tasters were subject to any great mental strain or anxiety in their business.

Dr. MORTON said that they were not. Referring to the influence of alcohol, he asserted positively his belief that it had nothing to do with the train of symptoms he had given. There was, to be sure, very often a craving for alcohol, but it was not uniformly felt, and the danger of drinking was appreciated by the tea-tasters.

The Association then adjourned to meet on Friday at 2.30 P.M.

FRIDAY, JUNE 20TH.—THIRD DAY—AFTERNOON SESSION.

The Society was called to order at 2.30 P.M. by the President.

The minutes of the previous day were read and approved.

The amendment to the By-Laws proposed by Dr. Hammond was adopted.

REPORT OF COMMITTEE ON NOMINATIONS.

The Committee on Nominations made the following report:

For President—F. T. Miles, M.D., of Baltimore, Md.

For Vice-President—R. T. Edes, M.D., of Boston, Mass.

For Secretary and Treasurer—E. C. Seguin, M.D., of New York.

For Council—Dr. F. K. Kinnicutt, of New York, and Dr. L. C. Grey, of Brooklyn, N. Y.

Dr. GEO. M. BEARD presented two patients who illustrated anthropophobia and topophobia. Both were strong, vigorous men.

THE DOSAGE OF ELECTRICITY.

Dr. GEO. M. BEARD read a paper on the above subject, in which he stated that the dosage of electricity was a complex result of a number of different factors.

1. The strength of the current.

2. The length of the application.

3. The quality of the application, and

4. The method of the application.

1. The strength of the current.—It was difficult to

estimate that, and to say that we had treated a patient with so many cells was saying but little. The size of the electrodes, the manner of their application, and the moisture of the skin, must all be taken into consideration. The resistance offered by the skin was also an important element, for it was variable, and besides, the quality and temperature of the water were important considerations in making an estimate.

The amount of electricity passing through the body was varied by—

- a. The electro-motive force of the battery.
- b. The internal resistance within the battery; and
- c. The external resistance outside of the battery.

2. The length of the application could not be determined with minute precision. As a rule, European neurologists made shorter applications than did the American. There was no question but that long applications exhausted muscles, and an application of one or two minutes' duration to a paralyzed muscle was all that was beneficial. The beginning of electrical treatment should be with short applications and mild currents.

No absolute rules could be given regarding strength of current or length of application. Other things being equal, a stronger current required shorter applications. Other things being the same, the galvanic current was not so well borne for a long time as the faradic current of corresponding strength.

3. The quality of the application. The use of mild currents at first was wise. Experience compelled us to admit that stimulating as well as sedative effects could be obtained by negative as well as positive poles. Practically, the difference between the positive and the negative poles, and between the ascending and the descending currents, was one of degree rather than kind.

4. The method of application was largely included in what had been said. He had long ago recommended the terms, medium, mild, and strong currents, as the best approximation possible to a fair description of the doses of electricity.

Again, the dosage of electricity was modified by the external position of the poles. The same strength of current with the negative pole was a stronger application of electricity than with the positive pole in the same locality.

Even the best constructed galvanometers interposed in the circuit could not be an accurate measure of the dosage of electricity, for the reason that the amount of electricity passing through the body of the patient would vary with the pressure on the sponge and with the position of the electrodes. Consequently there might, in different applications, be the same number of degrees indicated by the galvanometer, while the applications really were very different in their character and in their effects, because the electrodes were differently placed.

Temperament was another element to be taken into consideration in regulating the dosage of electricity.

Finally, what was true of familiar drugs, and the conditions regulating their dose, was true of electricity.

DR. ROCKWELL remarked that, in his opinion, the only rule that could be laid down with reference to the dose of electricity was that the faradic current should never be given of such strength as to make it unpleasant for the patient, except in treating paralysis; and the same held good with reference to the galvanic current. He had experienced advantage from the use of a long-coiled galvanometer, although the instrument had no practical value except to show

the presence of a current and to determine the positive and the negative poles. He also spoke of the benefits of general faradization.

DR. GREY spoke of the good effects of general faradization, and then followed a long discussion regarding the manner of its application, which was participated in by Drs. Rockwell, Grey, Hammond, and Beard, and finally the discussion was postponed until the evening session.;

PATHOLOGICAL LESIONS IN THE NERVOUS SYSTEM IN YELLOW FEVER.

DR. H. D. SCHMIDT, of New Orleans, demonstrated microscopical specimens prepared from the brain and spinal cord of patients dying of yellow fever.

From his experience in that disease he was satisfied that, in the great majority of cases, death occurred from congestion of the brain. If the case had sufficient duration, pathological changes occurred in the ganglionic bodies of the nervous system. Fatty degeneration and fatty infiltration were prominent characteristics of this disease, and the fatty change was developed within four or five days in some of the organs. His observation had not been sufficiently extensive to enable him to say whether the fatty changes were due to direct effects first upon the blood or first upon the nervous system, or whether there was a double action. He had made sixty autopsies in yellow fever cases, and in all instances in which he had made microscopical examinations he had found the brain congested, sometimes throughout, sometimes in certain portions, especially in the parietal lobe. In some cases he found the ventricles filled with serous fluid and sometimes purulent. During the last epidemic he examined the spinal marrow and the sympathetic system, especially the semilunar and the first thoracic sympathetic ganglia. To his surprise he found in the semilunar ganglion, also in the thoracic, that the nuclei of the ganglion cells were entirely gone, and besides, that the ganglion cells had a true fatty lustre. The ganglionic cells in the cortex cerebri had undergone fatty degeneration, and in almost all cases it was difficult to recognize the ganglionic cells. The object of exhibiting the specimen was simply to show that the congestion in yellow fever was throughout the entire brain in the great majority of cases; cerebrum, cerebellum, pons, and medulla oblongata.

With regard to convulsions which had been described as uræmic, he did not believe they were of that character. He believed that suppression of urine occurred only in exceptional cases of yellow fever. In 1867, in the course of a large practice in yellow fever, he saw but two cases of real suppression of urine; almost uniformly such cases were cases of retention, and he had usually found urine in the bladder of persons dying with what had been supposed to be due to suppression of urine.

Dr. Schmidt did not accept the doctrine advanced by Dr. Richardson of Philadelphia, that the tubules of the kidneys were filled with bacteria; they were blocked up with disintegrated epithelium, and he did not accept the opinion that the blood underwent decomposition.

CHOREA IN HYSTERICAL CHILDREN.

DR. G. C. GREY, of Brooklyn, read a paper containing the histories of several cases in which chorea and hysteria coexisted in the same children; three girls and one boy. The paper was discussed by Drs. Spitzka, Rockwell, and Hammond.

DR. R. W. AMDON, of New York, then read

A CONTRIBUTION TO THE STUDY OF CEREBRAL LOCALIZATION.

The paper consisted in a study of six cases of lesion of the brain: 1. Traumatic capillary cerebral apoplexy; 2. Cyst of the pia-mater; 3. Cerebral laceration and hemorrhage—traumatic; 4. Old yellow patches of softening; 5. Pistol-shot wound of the head; and 6. Pistol-shot wound of the head, with a remarkable magnitude of injury without cerebral symptoms. In the last case there was perfect exemption from paralysis and no aphasia.

In the opinion of the author of the paper, localization of destructive or irritative lesion in the motor district of the brain had reached as near perfection as it ever would, for small patches of gray matter occupied only similar positions in all processes, and might be found in a slightly different level in different brains.

On motion, the discussion was postponed until the evening session.

The Society then adjourned, to meet at 8.30 P.M.

THIRD DAY—EVENING SESSION.

The Society was called to order by the President.

The discussion upon Dr. Amidon's paper on the "*Localization of Cerebral Functions*" was continued.

DR. E. C. SPITZKA, of New York, remarked that the tendency had been for some time to localize lesions too closely, and he was pleased to notice that Dr. Amidon had appreciated the error of this method, and had recognized the anatomical variability of the brain.

DR. AMIDON remarked that in foetal life the brain was first a mere vesicle, with perfectly smooth external surface, with nerves running to it. It was probable that in this smooth surface motor centres were already established. When the fissures began to appear and the sulci to form by foldings in of this outer membrane, the centres might be carried by such foldings sometimes in one direction and sometimes in another. In this way the motor centres, for instance, might be brought either in front or behind, or even at the bottom of the fissure of Rolando. A motor centre, therefore, could not be invariably referred to a particular convolution, but must be indicated by a pretty large area of tissue.

DR. SEGUIN remarked that for some time he had recognized this fact, and had been in the habit of indicating the various centres by rather large areas, which occasionally overlapped each other.

CEREBRAL HEMORRHAGE.

The PRESIDENT (DR. MILES) then showed the brain of a person whose history was as follows: He had been suffering from Bright's disease, and was suddenly taken with right hemiplegia of arm and leg. When first seen by the speaker, immediately after the attack, his mind and speech were perfectly normal. He soon began to recover the use of his arm; and later, in three or four weeks, movement began to return to the leg. Before recovery was complete, however, the patient died. Post-mortem examination showed the existence of a small circumscribed clot, partially absorbed, in the left hemisphere at a point where a section passing through the anterior frontal convolution downward, not quite parallel with the fissure of Rolando, would cut into it. It was a region supposed to be motor. The case was particularly interesting, however, because the clot was very circumscribed; it did not involve the cortex, but only the nerves running to the cortical motor centres, and there was no mental disturbance with it.

DR. E. C. SEGUIN, of New York, related two cases, showing

ABNORMAL SEXUAL EMOTIONS,

interesting chiefly in their psychological bearings. A female patient, perfectly well except for attacks of migraine, experienced occasionally the sexual orgasm while sleeping and dreaming; the dreams that excited the orgasm not being at all of an erotic character. On the contrary, the orgasm was generally excited by some emotion of great disappointment. At the climax of such disappointment the orgasm would be experienced. The other patient suffered in a similar way. The cases showed an apparent violation of the law of association of ideas, and a certain variation from the ordinary way in which the orgasm was brought about.

DR. SEGUIN also exhibited sections of a spinal cord in a case of myelitis, these sections showing the

VACUOLES, OR DROPSY CELLS,

which had been referred to in previous discussions. The sections were made from just below the seat of greatest inflammation.

DR. SPITZKA related the case of a patient who had died from a

CYSTIC TUMOR AT THE BASE OF THE BRAIN.

The tumor was oval in shape and about the size of a small orange. Its exact nature could not be determined, but it probably originated from the dura mater. During its growth the patient gradually became blind, paralytic, and insane. Four distinguished neurologists had during life pronounced upon it four different diagnoses, not one of which was correct.

DR. SPITZKA read also the abstract of a more elaborate article upon

THE PEDUNCULAR TRACTS OF THE ANTHROPOID APES.

The object of the paper was to show the homologies that existed between these structures in man and the animals just below him. That field had not previously been worked up, and yet its study revealed greater evidence of structural affinities than the study of the hemispheres. The conclusions reached were that the differences in those tracts between man and the anthropoids was less than that which often existed between the tracts in different men, and that there was in fact a structural identity between the man and the ape next below him.

The discussion of the paper was postponed till the next meeting of the Association.

DR. J. C. SHAW, of Brooklyn, read a paper upon

[TENDON-REFLEX IN THE INSANE.

He had examined 180 insane paretics in reference to this symptom. Ten of those had general paralysis, of whom tendon-reflex in 3 was absent. All the cases had a certain ataxia of gait. In the early stages of the general paralysis he had never found the reflex abolished. In 15 other cases of dementia, etc., reflex was absent. Two or three of those were cases of senile insanity. In 29 of the remaining cases reflex was slight; in 76 it was normal.

The conclusion arrived at was, that if tendon reflex was present in paretics, degeneration of the posterior columns might be excluded.

All were agreed that the tendon-reflex was a reflex phenomenon, and we should expect a lesion in the lower part of the cord to account for its absence. Dr. Shaw presented sections of the cord of a patient in whom tendon-reflex was absent, showing such a lesion. Other specimens were shown illustrating the idea that in chronic meningo-myelitis the changes were apt to

be more marked and more frequently seated in the posterior portion of the cord, in this way abolishing tendon-reflex.

DR. SPITZKA stated that he had at one time made an examination of 40 cases; and his examinations, so far as they went, tended, like those of Dr. Shaw, to show that the abolition of tendon-reflex was an indication of a lesion in the posterior columns of the cord.

The Association then adjourned, to meet on the third Wednesday in June, 1880, in the city of New York.

Correspondence.

ANTISEPTIC TREATMENT OF WOUNDS —CARBOLIC ACID VERSUS ALCOHOL.

TO THE EDITOR OF THE MEDICAL RECORD.

MY DEAR SIR:—It is not my intention to enter into a discussion of the scientific question raised by Dr. Perrin in the *Union Médicale*, or even the comparative merits of these methods of wound treatment. Prof. Lister's system is probably so well known to the readers of your valuable journal that it does not require a description here; but as the treatment of wounds with alcohol has never been much employed beyond the borders of France, I will venture to give a brief description of its use and a page of its history.

The usual treatment of wounds with alcohol begins immediately after the ligation of the bleeding vessels, by washing the raw surface with strong commercial alcohol—although some surgeons prefer to dilute it slightly with water—after which it is carefully dried with some soft linen. When a cavity remains after an operation it should be filled up; and, in case of an amputation, after the approximation of the flaps, the stump should be covered with charpie which has been saturated with alcohol. The stump or wounded part is now covered with an impermeable layer of oiled silk or gutta-percha tissue, which is retained in position by a few turns of a roller bandage. This dressing should be changed sufficiently often to preserve the required degree of alcoholic moisture, or, in some cases where the charpie is not too much soiled, it may be sufficient to remove the oiled silk and re-apply the alcohol.

The alcohol treatment is continued so long as there is reason to fear septic infection, and then usually gives place to some other method which is supposed to hasten more rapidly the cure.

This method of wound treatment, like most others, is variously modified to suit particular cases or the fancy of different surgeons.

The following historical sketch from "*Histoire de la Chirurgie Française, par le Docteur Jules Rochard*," may possibly interest those who read your editorial of June 14, 1879, on this subject. Dr. Rochard says: "The interest inspired by the question of disinfectants had not yet died out when the attention of surgeons was called to another method, which recommended itself by its simplicity and its ancient origin. It was no longer a question of the effect of a new product of chemistry, but it was one of the most common agents, and one very generally used in therapeutics. Alcohol has been employed in the treatment of wounds by surgeons of all ages. A. Paré, Dionis, Percey, and Larrey were acquainted with its medicinal virtues, and the laity have never

lost sight of them. All the balsams and the vulneraries owe their principal curative properties to alcohol—from the balsam of the centenary plant to the tincture of arnica, which the laity still consider a panacea, and the tincture of camphor, which the works of Raspail have restored to fashion in certain classes of society. It was therefore without surprise that the Academy of Sciences received, in 1859, a memoir in which Bataille and Guillet reported their experience in the employment of alcohol and alcoholic compounds in surgery.

Lestocquey, of Arras, in 1848, and Prof. Dolbeau, in 1850, had used it before them, but without attaching to it any great importance, and the memoir of Bataille and Guillet had itself passed almost unperceived, when, in 1863, Nélaton adopted this mode of treatment at the "Hôpital des Cliniques." The results were very satisfactory. The wounds were maintained in a state of strict cleanliness, and preserved their ruby aspect under the cover of a light film of plastic lymph, and cicatrization appeared to progress more rapidly than by any other method. Secondary accidents were almost always averted, and among ninety-seven patients thus treated they reported only two cases of purulent infection and five of erysipelas.

These facts were brought before the public by two internes of their service: Chedevergne, now professor in the medical school of Poitiers, and De Gaulejac. Chedevergne had discovered, however, that the alcohol decomposes pus, removes its odor, and converts it into a greasy albuminous substance. He had seen with the microscope the purulent globules instantly dissolve on contact with the alcohol. Following this publication, the use of alcohol had spread still more rapidly than that of the disinfecting powders. Every one hastened to experiment with a remedy which was always at hand.

Marc Sée, in a memoir read to the Society of Surgery, December 12, 1856, confirmed the facts observed at the "Hôpital des Cliniques," and presented alcohol as a prophylactic in purulent infection. This last conclusion appeared a little hazardous to some of the members of the Society, and especially to Velpeau and Hippolyte Larrey. The fact is, that even at the "Hôpital des Cliniques," and under the eyes of Nélaton, cases of purulent infection had occurred during the course of this treatment, and this was fully demonstrated elsewhere.

We will farther on express more fully our opinion as to the prophylactic value of all these modes of treatment. For the present we will limit ourselves to stating that alcohol, being always within reach, may have its advantages, and that the surgeons who have restored its use have rendered a true service.

Yours very truly,

B. A. WATSON.

JERSEY CITY, N. J., June 23, 1879.

POISONING BY RHUS RADICANS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The treatment of this annoying affection of the skin was purely empirical until the discovery by Prof. Maisch, of Philadelphia, that the toxic agent in rhus-poisoning was an acid which he called *toxodendric acid*. Since this discovery of Prof. Maisch's the treatment of this troublesome disease has been more rational. I have used the alkaline bicarbonates and lime-water both locally and internally in this affec-

tion with fair success, but this season have been using a saturated solution of hyposulphite of soda, keeping the affected skin moist with the solution, and in severe cases have given the hyposulphite internally at the same time. By this treatment I have aborted the worst cases in from 24 to 48 hours. I am sure any one giving the hyposulphite a trial in rhus-poisoning will reach the same conclusion that I have—that it is the best among all known remedies for curing this disease, and it fulfils the indications of a good medicine.

Respectfully yours,
WM. E. BRANDT, M.D.

HANOVER, INDIANA.

HEAT AND COLD TO THE SPINE IN UTERINE INERTIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Monday evening, May 9th, I was called in a case of labor. The woman was stout and robust, æt. 26, and gave the following history: She had previously been twice confined; her first labor had been marked by uterine inertia, and extended, she stated, over a period of thirty-six hours; her second confinement had been of like character, but had been terminated by instrumental aid. I ascertained that slight contractions had occurred about an hour previous to my arrival. By examination I discovered a condition of ante flexion of the uterus; the abdominal wall projecting downwards and forwards. This condition, I was informed, had existed in her previous accouchements. The depressed fundus I raised and supported with a bandage, which, in conjunction with the supine position, seemed to bring the axis of the uterus more into coincidence with the brim. The contractions now became somewhat vigorous and regular, and so continued until the presenting part, the head, became firmly engaged, when complete uterine inertia supervened. The patient now stated that the "same thing" had happened at this time in her former labors.

Frictions over the uterus were now employed, but I could obtain no effect therefrom; a dose of fl. ex. ergot, Squibb's, was immediately rejected by the stomach, while ergotin administered hypodermically elicited no response from the uterus. The forceps now appeared to be the only resource, but I feared that in a case like this of absolute inertia, forceps delivery would be followed by alarming, or even fatal, hemorrhage. I determined to try one other method of awakening the inert organ—that of cold to the spine—and accordingly placed an ice-bag to the lower part of the spine, and awaited developments. The effect was magical. In less than two minutes by the watch a contraction occurred, followed by another and another, and of excellent quality, too; this state of affairs lasted five or ten minutes, when the contractions began to decrease in intensity and frequency, whereupon the ice-bag was removed and a flannel compress wrung out in very hot water substituted for it. Again was the uterus awakened and forced to do its duty, and as soon as it began to flag the cold was applied, etc. Thus, by the alternate use of heat and cold to the spine, the uterus was brought under complete control, and the labor quickly and happily terminated in the birth of a female child weighing nearly twelve pounds.

Respectfully,

A. C. HOFFMAN, M.D.

76 RITE STREET, JERSEY CITY, N. J.

Obituary.

WILLIAM K. BROWN, M.D.

DR. WILLIAM K. BROWN died of apoplexy at Narraganset Pier, on Friday evening, July 4, 1879. He was born in Boston, July 8, 1806. He graduated from Dartmouth College in 1829. He subsequently practised medicine in Portland, Me., and in Philadelphia, after which he went to France, where he pursued his studies for two years under the famous French surgeon, Velpeau. He returned to this country and located in Brooklyn in 1841, where he became a successful practitioner. He was one of the oldest resident physicians of that city, was a prominent member of the Kings County Medical Society, and a Fellow of the New York Academy of Medicine. He visited Narraganset Pier hoping that the change would benefit his health, which had been declining since he received an injury some four years ago. He was quite well on the morning of the fourth, and fell a victim of death at 9.30 in the evening, at the ripe age of 73 years.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from June 29 to July 3, 1879.

WHITE, C. B., Major and Surgeon. When relieved to proceed to New York City and report arrival, by letter, to the Surgeon-General. S. O. 150, C. S., A. G. O.

STERNBERG, GEO. M., Major and Surgeon. Relieved from temporary duty at Washington, D. C., and to report in person to the President of the National Board of Health for duty with the "Havana Commission." S. O. 153, A. G. O., June 30, 1879.

STORROW, S. A., Major and Surgeon, Fort D. A. Russell, Wyo. T. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave the Department. S. O. 54, Dept. of the Platte, June 25, 1879.

JANEWAY, J. H., Major and Surgeon. Assigned to duty temporarily, as Post Surgeon at Fort Columbus, N. Y. H., in addition to his duties at Fort Wood. S. O. 105, Dept. of the East, June 30, 1879.

NORSON, Wm. M., Major and Surgeon. Relieved from duty with the Army Medical Board, in session in New York City, and assigned to duty as Post Surgeon at Fort Columbus, N. Y. H., relieving Surgeon C. B. White. S. O. 150, C. S., A. G. O.

GIBSON, J. R., Major and Surgeon. Granted leave of absence for four months. S. O. 150, A. G. O., June 26, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. Granted leave of absence for six months. S. O. 150, C. S., A. G. O.

KIMBALL, J. P., Capt. and Asst. Surgeon. Relieved from duty at Fort Columbus, N. Y. H., and assigned to duty as Attending Surgeon at the Headquarters, Military Division of the Atlantic and Dept. of the East. S. O. 105, C. S., Dept. of the East.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 5, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
June 28, 1879.	0	5	81	3	34	22	12	0
July 5, 1879.	0	4	59	4	32	15	5	0

PHYSICAL EXAMINATION OF SEAMEN.—In order that owners of American vessels may insure the services of healthy seamen, the Marine Hospital Service has announced in a circular that it will grant facilities for the proper physical examination of crews at all ports where medical officers of the Marine Hospital Service are stationed. Such officers will, upon the application of any U. S. Shipping Commissioner, or of the master or owner of any vessel engaged in the coasting trade, examine physically any seaman or seamen, and give a certificate as to their fitness or otherwise, without charge.

OFFICERS OF THE ARKANSAS MEDICAL SOCIETY.—*President*—E. T. Dale, M.D., of Texarkana; *First Vice-President*—W. M. Lawrence, M.D., of Batesville; *Second Vice-President*—J. B. Cummings, M.D., of Forest City; *Third Vice-President*—Albert Dunlap, M.D., of Fort Smith; *Fourth Vice-President*—J. T. Hamilton, M.D., of Pine Bluff; *Secretary*—R. G. Jennings, M.D., of Little Rock; *Assistant Secretary*—L. P. Gibson, M.D., of Little Rock; *Treasurer*—A. L. Breysacher, M.D., of Little Rock; *Librarian*—J. H. Lenow, M.D., of Little Rock.

The next annual session of the Society will be held at Little Rock, on the first Wednesday in May, 1880, beginning at 11 o'clock A.M.

"PUT IT ON AT ONCE."—A loose red woollen flannel shirt should be worn next the skin, both summer and winter. It should be "loose," so that its moving upon the skin may keep up a good circulation there; "red," because white flannel fulls up, becomes stiff, and impervious; "woollen," because woollen flannel conveys the perspiration from the *under* to its *outer* surface, where either the cotton shirt absorbs or the air dries it without injury to the body. On account of these properties, sailors wear red woollen flannel even during midsummer in hot countries. Of course, a very thin material should be worn in summer.

GOLD-PLATINUM STAINING IN MICROSCOPY is brought forward and much recommended by Dr. W. R. Weisger, of Manchester, Va., as a new and excellent staining for demonstrating the epithelium of the lungs and other organs, endothelium of blood-vessels, muscular fibres of arteries, etc. The specimen, being appropriately prepared, is placed in a solution of equal parts, a one per cent. solution of platinum chloride and a one-half per cent. solution of gold chloride for a few minutes, till it becomes a pale straw color. Then put it in a tumblerful of distilled water, acidulated by a few drops of formic acid, and expose to a bright sunlight. It must be watched, as complete staining usually takes place in less than three hours, even in July, August, and September.—*Trans. Med. Soc. Va.*, 1878.

CHLORAL HYDRATE IN DIPHTHERIA.—Prof. von Rokitsansky reports three cases of diphtheria, in which the local application of a fifty per cent. solution of chloral had a most striking effect on the local powers, although the usual remedies had previously proved entirely inefficacious. The solution was painted on every half hour. The pain produced was not very intense, but each application was followed by salivation. After a few applications the membrane could easily be removed, and delicate granulations could be seen in the reddened base. In two of the cases the membranes had disappeared, and the raw surface had granulated in two days, and in the other the process had run its course in four days. As soon as the membranes disappeared a weaker solution was used.—*Allg. med. Cent.-Zeit.*

CREMATION.—I am too firm a believer in the immortality of the soul, to view with patience the inconsistency of those who behave over the dead bodies of their friends as if the immortal part were being laid away in the ground. The more I might love my dead, the less willing I should be to leave the fair form that had once held an immortal spirit to turn into putrid carrion under ground, and breed a myriad of loathsome creatures out of its own rottenness. The attempt to substitute the scientific, poetical, and rational system of cremation has my earnest sympathy. I pray heaven that it may be possible to commit my body or that of any of my beloved to the pure flame, that in one short hour will purge them of dross as gold is refined in the furnace seven times heated.—*Col. Olcott.*

PHYSICIANS FOR SICK CHILDREN.—The Board of Health has divided the city into forty-eight districts, to each of which has been assigned an assistant sanitary inspector, whose duty it is to visit tenement houses, with the view of prescribing for sick children and giving such other advice as will tend to prevent the infantile disorders usually occurring in the heated season. The physicians have been selected from a large number of applicants, are paid for their services, and are expected to perform their duties conscientiously and with satisfaction.

THE BULLETIN OF THE PUBLIC HEALTH.—That portion of the Act of Congress of April 29, 1878, which requires consular officers, or other representatives of the United States at foreign ports, to report the sanitary condition of and the departure of vessels from such ports to the Supervising Surgeon-General of the Marine Hospital Service, and so much of the act as requires that officer to frame rules and regulations, and to execute the said act, and to give notice to Federal and State officers of the approach of infected vessels, and furnish the latter with weekly abstracts of consular sanitary reports, has, by Act of Congress approved June 2, 1879, been repealed.

BOOKS RECEIVED.

SPERMATORRHOEA: Its Causes, Symptoms, Results, and Treatment. Fourth edition, revised. New York: William Wood & Co., 27 Great Jones Street, 1879.

HANDBOOK OF AUSCULTATION AND PERCUSSION. By Herbert C. Clapp, A.M., M.D. Boston: Houghton, Osgood & Co., The Riverside Press Co., 1879.

PARESIS OF THE SYMPATHETIC CENTRES: So-called Malaria; Its Etiology, Pathogenesis, Pathology, and Treatment. By Charles T. Reber, M.D. St. Louis: Geo. O. Rumbold & Co., 1879.

Original Lectures.

ON THE CAUSES OF PUS IN THE URINE, AND ON THEIR DIFFERENTIAL CHAR- ACTERS.

A CLINICAL LECTURE DELIVERED MARCH 21, 1879,
 BEING THE LAST DELIVERED BY THE LATE
 CHARLES MURCHISON, M.D., LL.D., F.R.S.,

PHYSICIAN TO, AND SPECIAL LECTURER ON CLINICAL MEDICINE AT
 ST. THOMAS'S HOSPITAL, LONDON.

(Reported by A. CLIFFORD MEEKER, M.D.)

THE characters of the pus found in the urine are different in different cases. Sometimes, soon after micturition, when seen in a test-glass, the urine is in its upper part quite clear, while the pus which has deposited appears as a more or less creamy layer at the bottom. At other times, notwithstanding the urine has been passed for some little time, it is everywhere alike turbid with pus, which remains permanently diffused. The first urine is acid, and contains ordinary pus; the second is alkaline, more or less viscid and gelatinous, and contains altered pus.

Three tests are used to determine the presence or absence of pus in the urine: the heat and nitric acid, the liquor potassæ, and the microscope tests. The first, the ordinary test for albumen, produces in the first or acid urine a greater or less opacity in the clear portion, and a much more marked one in the creamy layer. A deposit of pus is at the same time distinguished from one of pale lithates, both of which appear alike to the naked eye, since the latter would be cleared up by this test. If the second or alkaline urine be heated, it becomes a little more opaque (phosphates being precipitated), when, if nitric acid be added, it becomes again a little clearer (the phosphates being again dissolved); so that the two leave its turbidity much as it was before, the pus remaining unaltered. If liquor potassæ be added to the acid urine, the pus becomes viscid and gelatinous, "ropy." (If the precipitate be phosphates instead of pus, this change does not take place.) In the alkaline urine this change has already been effected. With the microscope, which gives the best evidence, if pus be present, pus-corpuscles are seen, identical in appearance with white blood-corpuscles. How then can they be distinguished, you ask. They cannot be; they are, in fact, only white blood-corpuscles in the wrong place. If treated with a drop or two of acetic acid, the granular contents in each disappears, and in its place a nucleus, often three-lobed, is seen.

The pus in pyuria comes from five sources: I. The female genital organs; II. The urethra; III. The bladder; IV. The kidneys and ureters; V. Abscesses which burst into the genito-urinary channels.

I. *If the pus be from the female genital organs*, it is due to one or more of the principal causes: A, acute and chronic vaginitis (vaginal leucorrhœa); B, uterine leucorrhœa; C, ulceration of the cervix uteri; D, cancer of the uterus; E, lochial discharge; F, an abscess, as one due to pelvic cellulitis, bursting into the genital organs. These are distinguished from other causes by: 1, the clinical history and the symptoms of one or more of these affections; 2, the microscopical examination of the urine, in which may be found pavement-epithelium from the vagina, cylindrical epithelium from the uterus, or cancer structure; 3, a purulent discharge independent of micturition; 4,

the absence of pus from the urine when drawn off directly from the bladder by a catheter.

II. *If the pus be from the urethra*, having special reference to the male, most of it comes away just before the urine in micturition; it is also discharged in the intervals between the micturitions, and the urine is usually acid. The causes are: A, Gonorrhœa; B, an abscess of the prostate; C, an abscess of Cowper's glands, or of the perineum opening into the urethra. A. *Gonorrhœa* is distinguished by: 1, great pain and burning in the urethra during micturition; 2, redness, swelling, itching, and burning at the meatus; 3, the appearance of pus at the meatus when the glans penis is gently pressed between the thumb and fingers. B. *An abscess of the prostate* is distinguished by: 1, pain which is present not so much during as just at the end of micturition; 2, swelling and tenderness of the prostate discoverable by rectal examination; 3, the condition of the prostate, which enables the physician by squeezing it to force pus and microscopic calculi* along the urethra and out of the meatus. According to Sir Henry Thompson, an abscess of the prostate may give rise to inflammation extending back into the neck of the bladder, accompanied by symptoms resembling those of stone, such as great frequency of micturition, pain following micturition, and referred to near the lower end of the penis, a little blood occasionally with the last drops of urine, an alkaline reaction of the urine which is turbid with altered pus, an exaggeration of all these symptoms when the patient is exercising or moving about. Such a condition is distinguished from stone by: a, the absence of any history of the descent of a calculus; b, more or less discharge from the urethra during the intervals between micturitions, but perhaps appearing only on squeezing the glans penis or urethra; c, often a history of gonorrhœa; d, swelling and tenderness of the prostate; e, the absence of a stone in the bladder, determined by the sound.

C. *An abscess in Cowper's glands or the perineum* is detected by local examination.

III. *If the pus be from the bladder*, most of it comes away at the end of micturition; it is altered, viscid, and like "ropy mucus," due to the alkaline condition of the urine; the urine is usually more or less ammoniacal, fetid, and deposits crystals of triple phosphates; there is more or less pain in the region of the bladder over the pubic bones, which is increased according to the disease present, sometimes before and sometimes after micturition, and which is often accompanied with tenderness in the same region, especially when the bladder is full of urine; and there is increased frequency of micturition. The causes are: A, cystitis; B, calculus; C, new growth. A. *Simple cystitis*, independent of calculus or new growth, is distinguished by: 1, pain, which is severest just before micturition when the bladder is full, and which is relieved by emptying the bladder; 2, hæmaturia only in rare cases, excepting when the disease is unusually acute or the result of an injury; 3, the symptoms of the primary trouble of which cystitis is really only a symptom, such as, a, the retention of urine by a stricture, an enlarged prostate, by a stone in old people, by fevers paralyzing the muscular coats of the bladder, or by paraplegia; b, gonorrhœa extending backward to the bladder; c, poisoning by cantharides, or by morbid states of the blood, as occurs in gout (gout being the cause of most "idiopathic" cases); 4, the absence of symptoms specially characteristic of stone or new growth.

* Hilton: Guy's Hospital Reports, series iii., vol. xlii.

B. Calculus is distinguished by the symptoms of the accompanying cystitis, and by: 1, pain, which is severest at the end of micturition and for some time after (because then for a time, when the bladder is empty, the stone comes in contact with the sensitive mucous lining), and which is more distressing than the pain in simple cystitis, and referred to the glans penis about one inch from the meatus; 2, hæmaturia very commonly in small quantity, so small often as only to be detected by the microscope, which is increased by violent exercise; 3, increased frequency of micturition, which is more noticeable during the day when the patient is moving about than it is during the night (the reverse being true in prostatic stricture); 4, sometimes a sudden stoppage in micturition due to the stone acting as a ball-valve in the bladder opening of the urethra; 5, in a great number of cases a previous history of nephritic colic, a severe pain shooting from one kidney down to the testicle or penis, retraction of the testicle, attended with rigors and vomiting, nausea, pallor, a quick, feeble pulse, intermittent pyrexia, and sometimes swelling of the testicle, all suddenly ceasing after the passage of the stone into the bladder; 6, the passing of a stone, red sand, or gravel in the urine; 7, the presence of a stone determined by a sound.

C. New growths originating in the bladder, or penetrating it from without, either exciting secondary cystitis or ulcerating, are distinguished by: 1, paroxysms of severe lancinating pain quite independent of micturition (in villous disease, however, there need be no pain if the urethra be not blocked by a blood-clot); 2, hæmaturia, irrespective of exercise, which is irregular, coming on at long intervals, or being very persistent, and is sometimes very copious, especially in villous disease, in which it is dangerously so; 3, the presence in the pus of epithelial cancer-cells, or in villous disease, villous processes; 4, cachexia and emaciation; 5, the absence of stricture, prostatic disease, and other causes of retention; 6, possibly a hard, irregular, tender tumor, which can be felt by the rectum or vagina; 7, possibly enlarged glands in the groin, or the evidence of new growths in distant parts of the body; 8, in the absence of an appreciable tumor, and the presence of symptoms resembling those of stone, the evidence furnished by the sound, which may detect a thickening of the bladder wall, but not the presence of a stone.

IV. If the pus be from the kidneys or the ureters, it is at first uniformly mixed with the urine, but, after a little, settles as a creamy layer, leaving the urine above clear. The urine is acid, as a rule, but may become alkaline by standing too long after micturition, or be alkaline from the first if pus comes from the bladder as well as from the ureter, and, when alkaline, is turbid with altered pus, which does not settle. There is pain and tenderness over the kidney and about the crest of the ilium, which extends down to the bladder and penis (pain alone over the kidney may be a symptom of bladder disease only; but tenderness there is very significant). A tumor in the kidney region may be sometimes detected, and should in all cases be looked for. Increased frequency of micturition may be present, but without pain in the bladder, either before or after micturition. The causes are: **A.** Certain rare cases of acute nephritis. **B.** Calculous pyelitis. **C.** Tubercular pyelitis. **D.** Pyelitis from obstruction of the urinary passages.

A. Certain rare cases of acute nephritis.—These are such as sometimes supervene in cases of carbuncle, boil, erysipelas, acute fevers, parturition, or pyæmia, and also occur in rare instances in which gonorrhœa spreads

upward as acute pyelitis as well as acute nephritis, and are recognized by: 1, the slight quantity of pus; 2, the degenerate products of nephritis, such as epithelial pus or hyaline casts, etc.; 3, the previous history of smokiness or other evidence in the urine of the existence of acute nephritis; 4, a quantity of albumen much too great to be accounted for by the amount of liquor puris; 5, general dropsy not uncommonly; 6, uræmic symptoms possibly, such as headache, retching, drowsiness, coma, or convulsions; 7, the absence of any tumor to be detected externally; 8, a dry skin; 9, the previous history of one of the above causes. **B. Calculous pyelitis** is distinguished by: 1, a previous history, though not always, of nephralgia, a pain extending from the kidney to the testicle, penis, vagina, or thigh, attended with rigors, nausea, vomiting, frequent micturition, hæmaturia, retraction or swelling of the testicle, pallor, a quick, feeble pulse, and some fever, perhaps; 2, pain and tenderness, or simply a burning or aching, not necessarily in all cases, however, more or less constant in the region of one kidney or both, which is increased by much exercise and fatigue, or may be present only during fatigue; 3, hæmaturia, especially when the calculus is composed of oxalate of calcium, and in any other case after violent exercise, while microscopic blood is usually present at other times; 4, a variation in the quantity of pus from day to day; 5, the absence of casts; 6, crystals of uric acid, or, not uncommonly, of oxalate of calcium; 7, a tumor in certain cases, not in all, more or less painful, in the kidney region, which enlarges when the quantity of pus in the urine diminishes, and becomes smaller, or disappears, when the quantity suddenly increases; 8, attacks of intermitting pyrexia, occasionally ushered in by rigors, and followed by profuse sweating, which are most severe when the tumor is largest; 9, the absence of dropsy and other signs of acute nephritis, though the patient may ultimately die of uræmia, due to the wasting of the secreting tissue of the kidney; 10, its duration, which may be a fair lifetime (one case lasted forty years), or may end favorably, by the stone passing into the bladder, or becoming encysted.

C. Tubercular pyelitis is distinguished by: 1, the absence of any history of renal colic; 2, a constant, dull pain in the back, over one kidney or both, with exacerbations when the ureter becomes blocked, and which is accompanied with tenderness over only one kidney, in nine cases out of ten; 3, hæmaturia not uncommonly, which is slight, and may be the earliest symptom, and then disappear; 4, the unvarying, or steadily increasing, quantity of pus in the urine; 5, the absence of casts from the urine, and the presence often of amorphous granular matter insoluble in acetic acid, of particles of caseous matter, or fibres of connective or elastic tissue; 6, the absence of crystals; 7, the formation, if the ureter be blocked, of a tumor, which may point externally, or even stretch across the middle line (of sixteen cases, a tumor formed in seven); 8, persistent pyrexia, usually intermittent and hectic, with night-sweats; 9, as a rule, persistent and rapid emaciation, but the patient may even gain flesh under treatment; 10, signs of tubercle in the lungs, bowels, testes, prostate, vertebrae, or elsewhere; 11, the fact that it occurs more frequently in males than in females; 12, the absence of dropsy and any tendency to uræmia, the patient dying from exhaustion; 13, the rapid progress of the disease, which rarely lasts two years.

D. Pyelitis from obstruction of the urinary passages is distinguished by: 1, the history and the symptoms of a primary obstructive disease, as cancer of the uterus,

stricture, enlarged prostate, hydatids in the pelvis, etc.; 2, constant aching pain and tenderness in the back, over one kidney or both; 3, copious urine of low specific gravity, with little urea or albumen; 4, a varying quantity of pus in the urine, possibly with casts, consisting of pus-cells from small abscesses in the substance of the kidney, or with an alkaline reaction due to the concurrent cystitis; 5, very commonly paroxysms of intermittent pyrexia; 6, the great tendency to headache and uremic symptoms.

V. *If the pus be from an abscess bursting into the urinary passages*, its places of origin may be very various, some of them being: A. In rare cases, empyema. B. A tropical abscess of the liver. C. A psoas abscess. D. A prostatic abscess. E. Pelvic cellulitis after or independent of parturition. The urine is usually acid, and the pus falls as a creamy layer. Further, the diagnosis depends upon: 1, the clinical history previous to the pyuria; and, 2, the concomitant symptoms and signs of the primary disease.

Original Communications.

REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM IN CONJUNCTION WITH FREE SUPPORTING DIET, AS MEANS OF DEFENDING THE SYSTEM AGAINST THE DANGERS OF THE OPERATION—ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

WHEN Prof. Schroeder, a little more than a year ago, announced that under the antiseptic method of Mr. Lister he had just completed a series of fifty ovariotomies, with the result of forty cures and ten deaths (80 per cent.), and that thirty-three of these cases, with a loss of only one, were treated in the Berlin Lying-in Hospital—notoriously bad in all its sanitary appointments—there was a feeling of general satisfaction among gynecologists as to the value of antiseptic treatment, and a disposition manifested more than ever before to give it a fair trial. It is true that just as good, and even better, results than these had been secured in Great Britain, especially in the practice of Mr. Keith, before the general employment there of antiseptics; but in Germany nothing entitled to comparison with these results of Prof. Schroeder had previously been witnessed. Dr. Oldshausen, a few months later, in a letter to Mr. Spencer Wells, stated that the mortality of ovariotomy in Germany, before the adoption of antiseptics in the practice of Esmarch, Hegar, Schroeder and himself, was thirty-three deaths out of sixty-five cases, and since the adoption of antiseptics, thirty-three deaths out of one hundred and fifty-five cases. The exultation, therefore, over the unprecedented success of Prof. Schroeder was not surprising. In his series of fifty cases he had at one time twenty-three consecutive successes, which was also considered very extraordinary for German practice. But Mr. Wells, in England, long before this, without antiseptics, had a similar series of twenty-seven successful operations.

Satisfactory, however, as were the above results of

ovariotomy in Germany under the antiseptic method of Mr. Lister, they have since been so far eclipsed in brilliancy in Scotland by Mr. Keith, through the same protective method, as to be almost lost sight of. Mr. Keith states (*British Med. Jour.*, Oct. 19, 1878) that out of fifty cases treated according to the antiseptic method forty-eight were cured (96 per cent.); that the two deaths occurred in the first eight cases, thus showing the unprecedented run of forty-two successive successes, an achievement gynecologists for all time to come might be well content to emulate.

His convictions on the soundness of the theory upon which the antiseptic treatment is based, and the emphasis which he gives to the above results, Mr. Keith sets forth in the following significant words: "Since 1876 every operation has been performed with all Mr. Lister's care, under the carbolic acid cloud, and I shall never go back to the old way."

This triumph, therefore, of Mr. Keith, and his recognition of the value of the antiseptic method, may be accepted, I think, as conclusive evidence of the entire correctness of the practice. But in doing this, the fact should not be lost sight of that Mr. Keith still insists upon the greatest care in performing the operation, and the closest attention afterward to the details of surgical treatment. He says that, at the time of commencing antiseptics, in 1876, he had reduced his mortality to about ten per cent. through the improved sanitary condition of his top-flat hospital, and his employment of the actual cautery with the drainage-tube. Yet it is evident enough, from the importance attached to the two factors previously named, that he believed they contributed no small share to the result claimed. While he is willing, with the increased advantages of the antiseptic method before him, to exchange the actual cautery for the ligature, and to dispense with the drainage-tube, he still insists upon the importance of effectually controlling hemorrhage, and of taking time to wipe out thoroughly the peritoneal cavity. It is, as he further remarks, mainly in the class of adherent tumors, accompanied by a feeble state of health and too long delay of the operation, that the greatest difficulties in treatment are experienced, and to overcome which something in addition to antiseptics is still needed to insure further success in this direction.

Now, Mr. Keith having remarked that previous to his adoption of the antiseptic method of Mr. Lister, in 1876, he had reduced his mortality to ten per cent., it is to be inferred that further improvement of the operation in his hands must have for its object yet the diminution of the mortality of this seemingly small class of cases. The question then may be asked, how much has been gained already by the employment alone of antiseptics? According to the recent experience of Mr. Keith the answer is about six per cent. Therefore, if it be true his aggregate success with antiseptics is now ninety-six per cent., then there would seem to be but little need of any one else attempting to further improve the operation, since it is hardly probable that the actual mortality can ever be brought within narrower limits than four per cent.

Such is truly a very encouraging picture of the advanced state of our knowledge and practice with regard to the operation of ovariotomy. But Mr. Keith's success is exceptional, as no one for a moment, I imagine, will question. No other surgeon has attained anything like it in a large run of cases. I doubt whether at the present moment the average mortality of this operation in the hands of all surgeons is below 20 per cent. That the Lister method has contributed a large share toward bringing about

even this gratifying result there can be no doubt, and it is from a better and more general understanding of this and other important principles of practice yet to be mentioned that further diminution of our general mortality may be expected to follow.

It is, therefore, the general mortality of 20 per cent., instead of 4 per cent., as shown by the individual death-rate of Mr. Keith, that is to be lessened by improved methods of treatment, and the question now is, how can this be best attained? Death results, in about seven-eighths of all cases, from shock or collapse, hemorrhage, exhaustion, peritonitis, and septic intoxication, pyæmia, and to a large extent within the first three or four days. The late Dr. Peaslee, in speaking of the causes of death after the operation of ovariectomy, says: "Thus shock and collapse, when fatal, prove so in more than one-half of the cases within forty-eight hours; and in more than two-thirds, within ninety-six hours. About one-half of those who die of hemorrhage perish within twenty-four hours, and seven-eighths within seventy-two hours. Acute peritonitis proves fatal in twelve to twenty-four hours, and on to the eighth day; nearly one-fourth of the whole number dying on the third day alone, and nearly two-thirds of the whole within the first seventy-two hours. Asthenic peritonitis proves fatal from the ninth up to the twenty-first day, or even later."

Now, what are the conditions of the system before and after the operation of ovariectomy that favors death from the above causes? And what is the proper plan of treatment to curtail or eliminate liability to the same?

Conditions of the system.—With regard to the pathology of morbid growths of the ovaries, whether cystic or solid, benign or malignant, it is by no means clear and satisfactory. As to the views generally entertained upon the subject with regard to associated conditions of the system in different stages of the development of these growths, they must undergo, it seems to me, a very considerable modification before we can expect to derive the fullest benefits from constitutional and surgical treatments. But I do not propose here to discuss these points, but simply to state, in the most concise manner possible, my own convictions, which may or may not be correct. They are presented in the following epitome:

First. That the conditions of the system favoring the idiopathic development of ovarian growths expose both ovaries alike to attack, but that oftentimes these growths are induced without such previous conditions of the system, through dislocation or imprisonment of one or the other, or of both ovaries, in a state of hyperæmia or anæmia.

Second. That the morbid processes underlying the development of ovarian growths, in whatsoever way produced, soon lead to disturbance of innervation and nutrition of the entire system, and thus cause gradual impoverishment of the blood—general anæmia.

Third. That the general anæmia arising from the development of ovarian growths, call it, if you please, simple idiopathic or pernicious, is always progressive, and that the stages of growth and development ordinarily recognized only represent so many degrees of advancement toward a fatal termination, which certainly comes sooner or later, unless checked by the resources of surgical art.

Fourth. That the general anæmia accompanying ovarian growths is usually attended in the earlier stages with a well-preserved outward appearance of the body; but that such adipose symmetry—*embon-*

point—associated as it is with deficiency of red blood-globules, betokens discrasia rather than robust health.

Fifth. That the general anæmia of ovarian growths, when attended with emaciation, as in the latter stages, is pernicious in the highest degree, owing to the rapidly increasing abstraction of important elements from the blood, and to other functional disturbances arising from mechanical pressure.

Sixth. That inflammatory affections, whether of idiopathic or traumatic origin, occurring in any stage of the general anæmia attending ovarian growths, tend always to low and persistent forms; and that the attending fever, be it due or not to the introduction of a pyrogenic, phlogogenic, pyogenic, or septicogenic material into the blood, is almost, if not always, in a corresponding degree asthenic in type.

Seventh. The seemingly necessary corollary from the foregoing propositions is, that the surgeon should strive to counteract the evil tendencies of the general anæmia of ovarian growths; to husband and strengthen the powers of the system during its progress; to remove the morbid growth, as experience justifies, before or as soon after the emaciation appears, as the diagnosis can be determined; to avoid all depletory or depressing influences; and to treat the accompanying inflammation, whether acute or chronic, through all its stages, by continuous and persistent support of the vital forces, leaving the attending fever to take care of itself.

Proper plan of treatment.—The object of any plan of treatment, before and after the operation of ovariectomy, is to prevent death mainly from pernicious anæmia, shock or collapse, hemorrhage, exhaustion, peritonitis, septic intoxication, and pyæmia. Shall this be done by means of the ordinary antiphlogistic measures, including blood-letting, depressants, refrigeration, low diet, etc.? or shall it be by an opposite course, and by invigorating the system, restoring the lost elements of the blood, and maintaining as nearly as possible a health standard of the vital forces?

1. *Antiphlogistic treatment.*—With regard to antiphlogistic measures to control peritonitis, the great bugbear of ovariectomy, it is usually insisted upon that they should be employed early and vigorously, because by far the largest proportion of the fatal cases terminate within the first three or four days after the operation. So also must they be employed, if employed at all, to meet any of the other emergencies before enumerated, which allow but little time for hesitation. It is very easy for writers upon the subject to say that when peritonitis or septicæmia shows itself within the first few days after ovariectomy, with a pulse varying from 120 to 140, and a temperature from 102° to 104° F., that the patient should be watched and the threatening progress energetically combated by means of general bloodletting, leeching, opiates, fomentations, aconite, veratrum viride, ice-caps to the head, and ice-bags and cold water affusions over the abdomen. But what has been the success obtained by this plan of treatment? Judging from the experience of those who have given it a fair trial, there is for the future no great encouragement, I conceive, to adhere to it.

It is not my purpose here to enter upon a study of the various measures above enumerated. I shall speak only of the use of ice and cold water affusions, as means of controlling high temperature and lowering the pulse. As viewed from my standpoint, I see no great objection to the cautious application of either ice or cold water affusions to the head where the indications justify it, but as applied to the abdo-

men the question is quite another thing. I seriously object to the application of ice or cold water affusions to the abdomen, either as a part of the so-called antiphlogistic plan of treatment, or of the supporting plan of treatment, since their depressing effect upon the heart's action is oftentimes so great and uncontrollable as to immediately endanger life, or remotely to lead to suppuration within the peritoneal cavity, pyæmia, pleuro-pneumonia, and perhaps other complications. They unquestionably reduce the temperature, and lower the frequency of the pulse to almost any desired extent for the time being, but the vital forces are weakened and the integrity of remote organs is impaired by their use, especially when long continued. Therefore, notwithstanding the warm attestations as to the value of these resources by English and German ovariologists, I feel constrained to regard them as more powerful for evil than for good.

In our own country these expedients have also been resorted to with more or less flattering commendations. Dr. T. G. Thomas, whose large experience entitles his opinion to much weight, recommends cold water affusions over the abdomen, applying them at a temperature varying from sixty to ninety degrees, with the patient lying upon what is known here as Kibbe's cot. In a paper read by him before the New York Academy of Medicine, entitled: "The Most Effectual Method for Controlling the High Temperature occurring after Ovariectomy" (New York *Med. Journal*, August, 1878), he contrasts cold affusions with large doses of quinine and salicylic acid, and its salts, and expresses his convictions of the superiority of the former in the strongest terms.

Dr. Thomas assumes that prolonged high temperature after the operation of ovariectomy, occurring in whatsoever way, leads to disorganization of the blood, and serious impairments, or tissue changes in the cardiac and nervous centres. These results, he thinks, can be largely prevented by resorting to cold-water affusions over the abdomen, which keep the temperature and pulse from the beginning below 100° F. and 110 respectively, a result which can only be partially obtained, if at all, with large doses of quinine, or the salts of salicylic acid. As to the end sought to be attained, he says: "In adopting this plan of treatment after ovariectomy, and as I have in several cases done after parturition, I did not propose by it to check peritonitis or to cut short septicæmia, the great evils to be feared at the time. My object was to rob these diseases of one of their chief weapons of destruction—hyperpyrexia—and thus to resist the primary assault in the hope of bearing up against a more prolonged, though less violent, siege."

Dr. Thomas reports, in support of his views, eight cases, one of which was peritonitis resulting from a cause other than that of ovariectomy. Out of this number six recovered. Of the two cases terminating fatally, there was in one, as revealed by the autopsy, "internal peritonitis, with several points of localized gangrene of the intestine;" and, in the other, "evidences of peritonitis, pleurisy with effusion, and pneumothorax," which are assigned as the immediate causes of death—on the twenty-sixth and fourteenth days respectively. Dr. Thomas also refers incidentally to two other cases of ovariectomy, occurring some time before, which terminated fatally under the same plan of treatment; but the particulars of those cases he does not give, further than to say they illustrate "the lessons taught by the two first recited, namely: uniform capacity of this method of refrigeration for maintaining a nearly normal temperature, even while a fatal disorder, one of the most striking character-

istics of which is hyperpyrexia, still steadily marches on to a fatal issue."

Of the eighth reported case, he speaks of the depressing effect of this treatment upon the heart's action, as shown by the irregularity and intermittency of the pulse, with coldness and blueness of the hands. The patient, however, a girl sixteen years old, showed no other signs of being unfavorably affected by the douching, and made a good recovery.

With regard to nourishment, in connection with cold affusion over the abdomen, Dr. Thomas only speaks of it incidentally in cases one and seven as being by enemata, twelve and four days respectively. In the former he employed milk by intra-venous injection four times, but to no effect further than to assist in sustaining life, as was supposed, to the twenty-sixth day. From this it is to be inferred that low diet was the rule for a few days at least, since it usually forms an important feature in the antiphlogistic plan of treatment to which cold affusion properly belongs. Of the views upon low diet entertained by some of the highest authorities who have written upon the subject, the late Dr. E. R. Pease gives a faithful reflex in the following words:

"Very little nourishment is to be given the first seventy-two hours. I prefer to continue the milk porridge used before the operation. I. B. Brown gives barley-water, or iced milk, or weak broths, and sometimes also a mutton-chop on the third day. Mr. Wells and Dr. Keith give barley-water mainly, but the latter gives no food at all till after flatus passes *per rectum*—only a little cold water, or a few sips of very hot water. He gives soup and brandy enemas in the feeblest cases. Dr. Roberts advises as little food as possible the first forty-eight hours to obviate sickness and vomiting. No solid food is to be given, as Dr. Olaj judiciously advises, until asked for by the patient. If the stomach is irritable, the nourishment, as well as the opiate, is to be administered *per rectum*, in which case beef-tea is a good substitute for the milk porridge."

Now, if the experience of Dr. Thomas with cold water affusions over the abdomen, based upon the results of the eight cases reported in his interesting paper, proves anything, it is the full recognition by him of the great value of the method from the following considerations:

1. That sulphate of quinine and the salts of salicylic acid, if antipyretic at all, are only so slightly, so as not to entitle them to any confidence in the treatment of peritonitis and septicæmia resulting from ovariectomy.

2. That cold-water affusion over the abdomen is antipyretic in the highest degree, and deserves to take precedence over all other known methods as a reliable means of controlling the peritonitis and septicæmia, on account of the simplicity of the method and the ease with which it can be carried out upon Kibbe's cot.

3. That the dangers of cold-water affusions over the abdomen, if there be any incident to the practice, are so slight as only to require ordinary precautions for their avoidance, and that they should not stand in the way of the employment of so valuable a method to control the hyperpyrexia of peritonitis and septicæmia.

4. That cold-water affusions over the abdomen, while they are not directly curative in themselves of peritonitis and septicæmia, yet are indirectly so to a higher degree than any other known agent, by preventing disorganization of the blood and serious impairment of the vital functions.

How far these views of Dr. Thomas upon cold-water affusions as an antipyretic are supported, the statistics of his eight reported cases must answer. A mortality of twenty-five per cent., as shown by this exhibit, is certainly not promising when compared with Mr. Keith's rate of ten per cent., secured without either antiseptics or cold-water affusions. I do not know what Dr. Thomas's further experience in the use of cold affusions has been, nor do I know how often it has been employed by other operators since his interesting paper was published. I have employed the method only once, which was in the Woman's Hospital several months previous to the time he read his paper before the Academy of Medicine. From the little experience which a single case gave me, I was convinced that the practice was not only heroic but dangerous, and opposed to sound principles of surgery. The report of the case (1) is appended to these remarks, which was one of double ovariectomy. The after-treatment consisted in free nourishment by the mouth from the beginning, and of opium by the rectum to control pain. At the end of thirty-six hours the pulse had reached 120 and the temperature $108\frac{1}{2}^{\circ}$ F. Associated with these indications there were tympanitis, tenderness over the entire abdomen, thirst, and dryness of skin. Under these circumstances the patient was put upon Kibbe's cot and douching of the abdomen with water at 67° F. commenced. At the end of seventy-one hours, when eight douches, varying from 65° to 75° F., had been given, there was no abatement of the acuteness and intensity of the peritonitis. Pulse 126 and very feeble, temperature $104\frac{1}{2}^{\circ}$ F. Beginning now to lose confidence in the method, and necessarily feeling anxious for the safety of my patient, I supplemented the opium per rectum with eight grains of sulphate of quinine, to be repeated every six hours. The process of douching, with no abatement, however, was continued under the direction of the house-surgeon, Dr. J. L. Perry, whose care and attention were unremitting. At the end of eighty hours, when sixteen douches in all had been given, the last eight within eight hours, the temperature stood at $108\frac{1}{2}^{\circ}$ F., just one-quarter of a degree less than at the beginning. A few hours after the last douche, at 6 o'clock A.M., I made my visit, and found the patient in a condition of collapse, as I supposed. She seemed to be chilled through, so to speak; was cyanosed and almost pulseless. The application, however, of cans of hot water about the chest and extremities, and the free administration of whiskey, were soon followed by reaction and disappearance of the above threatening symptoms.

The cold affusion was discontinued, and in its stead increased nourishment and stimulation by the mouth were ordered, in connection with quinine and opium by the rectum. At the end of ninety-six hours, when the patient had taken forty grains of quinine, thorough *cinchonism* manifested itself, and her pulse was 104 and temperature $100\frac{1}{2}^{\circ}$ F. From this time on the temperature rose but little above 101° F., and this only for a few days. Her convalescence, however, was slow, lasting nearly three weeks, owing, no doubt, to inflammatory products shut up in the peritoneal cavity, as the result, I fully believe, of the depressing influence produced upon the vital forces for so long a time by the cold affusion, and my failure to employ quinine at the outset of the after-treatment. But my treatment of this case was no more heroic than that adopted in the eight cases reported by Dr. Thomas. The difference in result being simply that my patient narrowly escaped a fatal issue from exhaustion and depression of the heart's

action without permanent reduction of temperature at the end of the fourth day; while one of his, after having the temperature for twelve days kept at a point below 100° F., discharged through the abdominal incision more than a pint of pus on the fourteenth day, and finally died on the twenty-sixth day, leaving evidences of extensive peritonitis and gangrene of the bowel; and the other, after the temperature had been lowered from 104° to about 101° F., suffered from an attack of acute pleuritis, with effusion on the fifth day. The increased temperature of the latter complication was treated by continued douching until the eighth day after the operation, when recovery from its effects was pronounced. The case, however, terminated fatally on the fourteenth day, showing at the autopsy, as before mentioned, peritonitis and pleuropneumonia, with effusion.

May not these embarrassing complications encountered by Dr. Thomas and myself be the legitimate fruits of the employment of cold-water affusions over the abdomen? And may we not in attempting, with so powerful an agent, to disarm peritonitis and septicæmia of their dire phenomena—high pulse and high temperature—on the one hand, directly favor or produce, on the other hand, the identical complications and lesions mentioned? In short, may we not, in thus attempting to steer clear of Scylla, run squarely against Charybdis? These are my convictions, and I shall not rest content upon the subject until further statistics open up a more encouraging prospect than that viewed from my present standpoint.

2. Preparatory and supporting treatment.—Next let us turn our attention to the plan of preparing and supporting the system as a means of meeting and controlling the principal dangers of ovariectomy previously enumerated. This plan of treatment, according to my understanding of it, embraces all suitable articles of food which can be assimilated when introduced into the mouth and the rectum. Any form of stimulant which the system may require or tolerate, and any kind of medicine which special indications may demand. The plan properly resolves itself into two stages: first, before the operation; and second, after the operation.

1. Before the operation.—This stage of the treatment may be supposed to be coextensive with the existence of the morbid growth, but for present purposes it is limited to the week immediately preceding the day set for the operation. During this time the secretions of the body should be regulated as far as practicable, the bowels kept in a soluble condition, the circulation equalized, pain or nervous irritation controlled, the system nourished, and the blood infused, so to speak, with new life.

The means for accomplishing all these ends readily suggest themselves. A mild cathartic every day, or every other day, and an active one the night before the operation; daily tepid baths followed by rubbing the body with emollients, of which vaseline answers an admirable purpose; anodynes or bromide of potash; easily digested and nourishing food of any kind, with wine, ale, porter, brandy, etc., as may be desired or found useful; tonics, of which the tincture of iron, salicin, and quinine are the best.

With regard to the last named medicines, the iron and salicin are given together three times a day in doses of 15 drops of the former and 15–20 grains of the latter. When this form of iron causes headache, as happens sometimes, or otherwise is not borne, then substitute iron by hydrogen or carbonate of iron, or give salicin alone. The quinine is reserved for the last, when 15 grains are given the night before the

operation, and 10, with a grain of opium, the following morning, after the lower bowel has been emptied by a lavement of warm water containing a small quantity of castile soap and common salt.

2. *After the Operation.*—The stage of active treatment immediately after the operation is supposed to continue until all dangers are passed—one week, more or less, according to circumstances. The faithfulness with which it is carried out rests not only in the convictions of the surgeon as to what is absolutely required, but in the ceaseless vigilance and assiduity of the nurses intrusted with his directions.

First, the remedial agents to be employed: These are principally quinine, opium, brandy, whiskey, champagne, and any other forms of medicine required or best suited to the individual case. After the patient has recovered from the anæsthetic, all sources of annoyance or direct irritation, of whatsoever nature, are to be avoided as far as possible, and none among them I conceive is more worrying than that of the hypodermic syringe. The use of this instrument I would therefore restrict to the narrowest limits, trusting to other modes equally efficacious for introducing morphine into the system. But can it be said that the stomach affords this facility to the desired extent? Certainly not. But this and the rectum together unquestionably do to a very high degree, not only as regards medicines, but also articles of food. When both of these fail, and the patient is in *extremis*, then the hypodermic syringe may play an important part in introducing into the system not only morphia, but quinine, brandy, or ether. The form of anodyne which I prefer to all others is Squibb's compound liquor of opium. It is more uniform and reliable in its strength than laudanum, and for that reason, if no other, is more valuable. The object to be attained by this preparation of opium is not only the control of pain, but the lessening of general reflex nervous irritation. It also antagonizes the unpleasant effects of quinine upon the brain, thus giving to the latter greater potency in controlling not only cardiac and pulmonic action, but the processes of disassimilation or tissue changes upon which depend, it is believed, the excessive body-heat. My rule now is to administer per rectum, as soon as the patient is removed from the operating-table to her bed, one drachm of the above preparation of opium with ten grains of sulph. of quinine in half an ounce of acidulated water. This will usually be found sufficient to lull the attending pain after the effects of the anæsthetic are passed. The dose is afterward reduced to half a drachm with the same quantity of quinine, and repeated every six hours. Should severe pains develop in the intervals, the hypodermic use of six to eight minims of Magendie's sol. of morphine is allowed. According to my experience, such emergencies arise only occasionally, and often not at all, in the entire after-treatment. This quantity of opium, about four and a half grains in the twenty-four hours, keeps the patient in a quiet, drowsy state, ready to take nourishment per orem and rectum at almost any moment, and again to relapse into the same somnolent state, seemingly without disturbance. It is seldom necessary to increase the dose of quinine-mentioned. This quantity, forty grains in the twenty-four hours, with the twenty-five grains given the night and morning preceding the operation, will rarely fail to produce its specific effect within thirty-six or forty-eight hours, just at the time it is needed to infuse the blood with life-giving and life-saving qualities, and thus control or moderate the rise of temperature. I have seen as small a quantity as thirty-two grains of quinine, given in this

way, followed by thorough cinchonism, with almost immediate reduction of both pulse and temperature; but usually double or triple this quantity will be required to produce the desired effect. I am satisfied that the reason why those who have tried and condemned quinine as useless in controlling hyperpyrexia after ovariectomy, is because they have not commenced its use early enough, have not properly combined it with opium, or have not given it in sufficient quantities. The disadvantages of waiting until peritonitis and septicæmia are developed before commencing the use of the remedy, and the advantages of giving it early in combination with opium by the rectum, are so evident, it seems to me they require only mention here.

But quinine and opium are not the only remedies I give by the rectum after ovariectomy. Brandy, in doses varying from one to four drachms, at intervals of three hours, may thus be administered with the greatest advantage when the stomach is irritable and stimulation is called for.

Second, the kind of food to be employed after ovariectomy. The introduction of food into the system by the rectum—rectal alimentation—is of the greatest importance to insure continuous support of the vital forces, and the best results from quinine and opium as regards the control and moderation of fever. The articles best suited for this purpose are unquestionably beef-tea, mutton-broth, chicken-broth, and mashed beef. The last named I greatly prefer, as it far exceeds in efficiency any of the other forms of animal nutriment mentioned. It is prepared by first chopping up the beef very fine, say three pounds, and then putting the whole into a wooden bowl and mashing it with a pestle. Now cold water, say a teacupful, is added, and thoroughly incorporated with the mass. This being done, it is next placed in a cullender, and all the juice pressed or rubbed out with as much of the muscular fibre as will pass through the holes. Again the juice is placed in a fine wire strainer and thus cleared of all the larger particles of meat-fibre that would otherwise clog or obstruct the pipe of the syringe. Thus is obtained about sixteen ounces of juice, which is believed to contain the nutritive elements of about one-third of the three pounds of beef employed. For keeping, it should be set in a cool place or upon ice, and for use warmed over a spirit-lamp or otherwise. It may be administered alone or in combination with pancreatine. In the proportion of two ounces to one drachm of the latter an excellent emulsion is formed, which is about the quantity to be administered at a time. Its use should be commenced three hours after the first dose of quinine and opium, and it also is to be repeated every six hours. If it manifests any tendency to irritate the rectum, so as to provoke a discharge, twelve to fifteen drops of the preparation of opium indicated (liq. opii. comp.) must be added. In this event, the quantity of the latter used with the quinine is to be lessened in like proportion, unless there be a demand for more than two drachms in the twenty-four hours, which is hardly probable. When the necessity arises, brandy may be combined with the emulsion in quantity varying from one to four drachms. The emulsion may also be used as a vehicle for the quinine and opium instead of the acidulated water, using for the purpose half to one ounce. In this manner from eight to ten ounces of the emulsion are introduced into the system in twenty-four hours, equal to half a pound or more of beef.

Thus is rectal alimentation, medication, and stimulation gradually carried to the point of giving the greatest amount of nutrition and support.

But again, ingesta by the mouth, when it can be tolerated, is no less important than by the rectum. I only mention this function last, natural as it is, because it is so liable to be disturbed or interrupted at the outset of the treatment. The stomach, almost always irritable from the anæsthetic for the first six or eight hours, can only be made available for the introduction into the system of medicines and food under the most careful watching and with the greatest precautions. Too early resort to it for either purpose is highly prejudicial to success, and oftentimes leads to irreparable mischief. One cannot be too cautious, therefore, in selecting such articles, both of medicine and of food, as may be best adapted to the ends in view and in testing with them the strength of the stomach.

As regards stimulants, brandy, whiskey, and champagne are the best and most available. Whichever one may be selected, it is to be given in small quantities, and often repeated. When tolerance of the stomach is assured and necessity requires it, the dose can be gradually increased, but under all circumstances this must be done cautiously, otherwise much valuable time must be lost. The same thing is true of all medicines employed to meet special indications in the after-treatment.

Much discrimination is called for in selecting articles of diet and in regulating the quantities to be given. Rice-water, barley-water, milk, milk-and-lime-water, milk porridge, beef-tea, chicken-broth, and mutton-broth are the articles to be relied upon.

Of these, milk alone or milk with lime-water, or milk in the form of porridge, is by far the most valuable and reliable in the beginning of the after-treatment, and given with the same precautions pointed out with reference to the use of stimulants, it seldom fails to give satisfaction, especially when used supplementary to regular rectal alimentation. Beef-tea and broths are equally serviceable after a few days, and may be alternated with the milk, or given alone, according to the fancy of the patient or the wish of the surgeon to discontinue rectal alimentation. Given in teaspoonful or tablespoonful doses and repeated every half or every hour, considerable quantities of any one of the articles named may be given in the twenty-four hours without disturbing the stomach or seriously annoying the patient. The patient being constantly under the influence of opium, given by the rectum, sensitiveness, not only of the stomach, but of the entire alimentary canal is held in abeyance, and a state of almost continuous slumber is maintained. Borborygmus and tympanitis, usually so constant and persistent after ovariectomy, under the expectant plan of treatment, show themselves in this state of quininism and seminarcotism only to a very slight extent, and often not at all. These are advantages which cannot be too highly estimated in any course of treatment. The meteorism of typhoid fever, a like condition, my friend Dr. Alexander Hadden, of this city, informs me he controls with an equally high degree of certainty by the employment of salicylate of soda.

The prevention of shock after capital operations by previous administration of large doses of quinine, as claimed by Dr. Hunter McGuire, of Richmond, has its explanation no doubt in the profound and salutary effect which the remedy produces upon the cerebro-spinal and sympathetic nerve-centres. That shock from the operation of ovariectomy, attended with or without serious loss of blood, is a frequent cause of death, immediately or remotely, there can be no doubt. That quinine does prevent or lessen the tendency to

shock in capital operations in a marked degree, I am thoroughly satisfied from my own somewhat large experience with it years ago in the general practice of surgery.

AN UNIQUE CASE OF PUNCTURED FRACTURE OF THE BASE OF THE SKULL, WITH AUTOPSY.

By CORNELIUS WILLIAMS, M.D.,

NEW YORK.

On Tuesday, Nov. 19, 1878, S. A., a butcher, about 48 years of age, came into my service in the Out-Door Department of Mt. Sinai Hospital, with the following history:

On the Saturday previous, Nov. 16th, while hanging meat in Washington Market, he slipped and fell against the beam to which the iron hooks are affixed. There was a lacerated wound of the right cheek on a level with the angle of the mouth, and about two and a half inches from it. There was considerable contusion about the temple and the eyelids, the eye was bloodshot, and there was considerable chemosis.

It was on account of the eye that he applied for treatment.

He stated that immediately after the accident he had walked to the Chambers Street Hospital, where his injuries had been attended to. The wound in the cheek was apparently not a deep one, and had not penetrated into the mouth. It had been closed with sutures, but was now filled with pus. I removed the sutures and examined the wound, without discovering that it was more than superficial. I found some periostitis of the orbit and adjoining bone.

An ophthalmoscopic examination of the interior of the eye under atropine mydriasis, revealed an entirely normal fundus, and the patient's vision was, as in the other eye, normal.

Supposing that no serious injury had been inflicted, I ordered ice applications to the right side of the head, and directed the patient to return on Thursday.

He came, and it was at once plain that the character of his injury had not been appreciated, for then cerebral symptoms were well declared. I advised him to apply immediately for admission to the hospital. This, however, his wife declined, and begged me to attend him at his house.

When I saw him an hour later, I found that he had a temperature in the axilla of 102° F. He was somewhat stupid, though answered intelligently, complained of pain in his head, and was constipated.

I found, upon careful examination of the wound in the face, that a probe could be made to pass inward and upward, to the extent of three inches, without then seeming to reach the end of the canal. Exophthalmos, which had not been noted on Tuesday, was now marked.

An ice-bladder was ordered to that side of the head, and a croton-oil purge given.

Punctured fracture at the base of skull was diagnosed; an unfavorable prognosis was given the family, and a suggestion was suggested to them. On the morning of the 20th all the symptoms were aggravated; temperature, 104° F.; patient more stupid, but when aroused answered properly, complained of great pain in right side of head; very little discharge from the wound in the face. The bowels had moved freely. The ice-bladder was continued, and at 12 o'clock Dr. L. Weber saw the patient in consultation. In the single previous explora-

tion of the tract of the wound, which I had made in the presence of Dr. Mundé, the probe had passed upward, backward, and inward, following the direction of a line drawn from the external wound to the inner side of the root of the nose. In the examination now made in conjunction with Dr. Weber, and first demonstrated by him, it was rendered apparent that the hook had passed further outward than I had supposed, and had penetrated the roof of the orbit toward its outer side, instead of through the ethmoid in the region of the sella turcica.

The consultant advised against any operation at the time, on account of the condition of the patient. The patient's temperature was 105° F., and his general condition was about as on the previous evening. There was no paralysis except of the vesical sphincter.

It was now observed that, though he ate such food as was given him, and drank with avidity, as indeed he did, up to within fifteen minutes of his death, he either could not or would not utter any word, and remained in possession of the full use of all his limbs, yet speechless, until 10 o'clock on Sunday morning, when he died. The patient's condition at my visit in the evening had remained the same, except that his temperature had gone up to 106° F., and between 9 and 11 o'clock on the night of the 20th he had a number of severe convulsions.

At about 12.30 on the morning of the 21st, with the assistance of Dr. Weber, Dr. Mundé, Dr. Saunders, and Dr. Holmes, the patient being etherized, I made an incision along the superior border of the right orbital fossa, extending from the nasal prominence of the frontal to about three-quarters of an inch beyond its external angular process, and down to the bone. I then dissected the orbital tissues away, keeping close to the bone, and dislocating the eyeball downward and inward. Continuing the dissection backward, I came upon the site of the fracture, about one and three-quarter inches from the upper orbital margin, and a little to the outer side. On reaching the place of the fracture, about a tablespoonful of very fetid, red-colored pus escaped, together with a quantity of gas. The patient's breathing, which had been for some time labored and rapid, immediately sunk to the normal, accompanied by a deep sigh. I desired to further enlarge the incisions, and remove any spiculae of bone, which I was confident would be found pressing in the brain, but it was advised to do nothing further, but dress the wound and put in a drainage-tube, which was accordingly done. The outer incision was closed with sutures to its external angle, where the tube was brought out, and the man put to bed.

An hour after the operation his temperature, which had been 106° F. immediately before, had fallen to 103½° F. The relief was, however, only temporary, and he had convulsions again before morning. When I saw him at about 11 A.M. I re-opened the wound, and evacuated a considerable quantity of pus, the drain-tube having become clogged. I then inserted a horse hair drain, and ordered ice to the part, together with supportive measures.

The patient died at 9 o'clock A.M., on Nov. 24th. At 5 P.M. of the same day, assisted by Drs. Holmes and Saunders, I made an examination of the interior of the skull. We found the hook had entered the cheek as indicated, had coursed upward and inward, passing behind the zygomatic process of the malar, through the spheno-maxillary fissure, fracturing the bones on either side, and through the roof of the orbit, about 1½ inches back and a little to the outer side, producing there a comminuted punctured

fracture, lacerating the dura mater, and forcing several plates of the thin bone into the substance of the brain.

An abscess had formed in the brain, having the form of a cone, its apex upward, and about 1½ inch deep by 1 inch at its base. Immediately around the abscess cavity there was a zone of intense cerebritis; there was intense congestion of the entire brain, and very plentiful deposits of pus in the meshes of the pia mater over its superior portion. The cavities of the arachnoid and the ventricles had not an unusual quantity of fluid in them.

The mortality in ordinary punctured fracture of the skull, where trephining is resorted to early, is always very large; yet an operation which shall have for its end a removal of any and all substances which are acting as a foreign body, must certainly always remain an imperative and unvarying rule of surgery. Had I appreciated the gravity or exact nature of the injury which the man had sustained when first I saw him it would then possibly have not been too late to have resorted to a radical operation for his relief. An examination of his face-wound was, however, as superficial and barren of real information as to his true condition as had evidently been the case with the surgeon who first saw him and closed the wound with sutures. The condition of the eye and adjacent parts was, when taken by itself, misleading. I have very often seen a similar picture presented as the result of slight injury or from an ordinary periorbitis without assignable cause, chemosis of the ocular and palpebral conjunctiva being constantly present, even with very slight periorbitis, such as may accompany an hordeolum at the outer canthus. The ecchymosis in this case was not greater than would have been accounted for by the blow received by falling upon the temple, which involved the outer angle of the orbit, and though most marked in the upper lid, was not confined to it.

Lastly, the interior of the eye, examined after complete mydriasis, showed no lesion whatever, proving—though the globe must have suffered considerable compression, which, as the subsequent history developed, was kept up several minutes, the man remaining suspended upon the hook till lifted down—that such compression may leave no trace.

The probe, as first introduced by me, evidently left the track made by the hook and wandered into the adjacent cellular tissue.

It may be that the "centre for language" is not invariably in the left anterior lobe, but may sometimes develop in the corresponding part of the brain upon the right side! This man, though not suffering from paralysis of any of the muscles used in phonation, was manifestly unable to form words, though sounds he freely uttered which much resembled those used by the deaf and dumb. Perhaps his memory for words had been annihilated. If the hypothesis of a transposition of the centre for language to the right side be not too radical or violent, then the abscess and zone of cerebritis in the anterior lobe, and involving the island of Reil, would well account for the abolition of that faculty. The subject was right-handed.

118 E. 59TH STREET.

TRANSLATION INTO FRENCH.—Dr. Wm. A. Hammond's work on nervous diseases has been translated into the French Language by Dr. F. Labadie Lagrave, who has added chapters on more recent discoveries in neurological medicine and on cerebral syphilis.

ON THE USE OF OXALATE OF CERIUM IN PERTUSSIS.

By BENJAMIN MORJÉ, M.D.,

PHYSICIAN TO THE GERMAN DISPENSARY, NEW YORK.

A MULTITUDE of opinions exist concerning the pathology of whooping-cough. It has at various times been called a variety of bronchitis, a specific neurotic disease; again, it was said to be due to an irritation of the pneumogastric nerves, in consequence of inflamed lymphatic glands. Some believe it to originate in a contagium taken up by the respiratory mucous membrane, which irritates the centre of the respiratory nerves in the medulla oblongata, giving rise to the convulsive paroxysms of cough. Lately it has been defined as a catarrh of certain portions of the respiratory tract, combined with the immigration of a fungus. From these situations, by irritation of the endings of the superior laryngeal nerve, the paroxysms of whooping-cough are said to be caused by reflex action. (Hagenbach.) This would make it seem that the infection is localized. Observers who have made the theory of infection the subject of special research emphasize that the micrococci occurring in whooping-cough differ from those of diphtheria, in not penetrating the epithelium and mucous membrane of the parts. (Letzerich, quoted by Hagenbach, in Gerhardt's *Handbuch der Kinderkrankheiten*.)

A corresponding mass of medicinal agents was the result of each innovation, so that, in the course of time, through the inefficiency of most of them, an apathy took possession of the profession, which led to the other extreme, in not giving any remedy to mitigate the suffering of the patients, thus permitting the disease to run its course, and trusting to its self-limitation.

Even Vogel at one time declared that there would never be a remedy to shorten the course of pertussis.

Niemeyer was more conservative, and thought that, if we were able to moderate the paroxysms of the cough, we could thereby shorten the career of the disease.

It is useless to enumerate the numberless remedies which have been in turn recommended for application locally, internally, and for inhalation and insufflation. Lately, quinia has been used by the adherents of the theory of infection, and was thought to be efficient by its local influence on the specific catarrh of the pharynx and upper laryngeal region. (Binz.)

It is immaterial from which pathological standpoint we consider the disease, so long as we concede to it a spasmodic stage—and the second stage is certainly one *par excellence*. Its importance is not to be overlooked when we consider that pneumonia is most often developed in it, and an antispasmodic agent is clearly indicated. I have found a very reliable one in oxalate of cerium, whose action as a nervous sedative was long ago established by Simpson in the vomiting of pregnancy.

In the May number of *THE MEDICAL RECORD* of last year, an article from the *Practitioner*, having Dr. Thomas Clark for its author, was quoted, in which he states that oxalate of cerium was by him used in chronic cough, with excellent results. To this was afterward also added the testimony of several physicians in this country who had found it reliable in the same ailment.

This encouraged me to try it in the spasmodic stage of whooping-cough, and with excellent results, often astonishing by the promptness of its action. Not only was the frequency of the attacks reduced, but

their intensity was also lessened in each case, giving the patient an excellent night's rest, and invariably shortening the second and most severe stage of the disease. No claim is made as to its action on the first or third stages; but the second, as it is by far the most harassing, naturally demands our greatest attention. I have thus far used it in ten cases, of which seven were females and three males. Two of the cases were complicated with other diseases. The mode in which the oxalate of cerium was administered was always the same, it being given in one single dose each day, and before breakfast. The ages of the patients under observation ranged from one to seven years, and the oxalate was administered in one-half grain to three-grain doses.

CASE I.—A girl aged seven years. After a preliminary bronchitis the characteristic whoop declared itself. Bromide of ammonium, belladonna, chloralhydrate, etc., were given, but seemed to exert little influence, when suddenly the cough ceased, only to give way to typhoid fever, which, with its relapses, lasted for six weeks. Hardly was the patient up again before the whooping-cough reappeared, with even more severity. Expectorants were given, and one dose of 2 grs. of oxalate of cerium half an hour before breakfast each morning. The salutary effect of the oxalate was quickly apparent; but, to see if its action was not overestimated, it was withdrawn for several mornings, when, instead of having light attacks of coughing once or twice a day, with nocturnal quietude, greater intensity and frequency of the attacks quickly ensued. The cerium was again resorted to, and the child soon recovered with but slight inconvenience.

CASE II.—Girl four years old. Had whooping-cough two weeks, when scarlet fever appeared in a very severe form, being complicated with abscesses, uræmic convulsions, etc. The pertussis did not at any time abate, but steadily increased in severity. Of course, with such a number of troubles, much attention could not be bestowed on the cough; but after convalescence as regarded the scarlatina had been established, the pertussis was treated. Oxalate of cerium was given as above, in one-grain doses, once a day before breakfast, with quick amelioration of the harassing cough. It may be here stated that, to reduce the high temperature of the scarlet fever, quinia was repeatedly given in large doses without having the least effect in counteracting the pertussis.

CASES III AND IV.—Boy nineteen months old and girl aged three years, attacked with whooping-cough; coughing spells frequent and severe, occurring once to three times each hour. Bromide of ammonium and belladonna were followed by no improvement, excepting easier expectoration. Epistaxis and frequent vomiting, accompanied by a cyanotic countenance, in both cases. The oxalate of cerium was given before breakfast, in one-half and one-grain doses respectively, once a day, with almost instant relief, the attacks being reduced to two or three light ones in twenty-four hours, instead of occurring hourly and with greater severity. To demonstrate the usefulness of the remedy it was withdrawn for several days, though the bromide and belladonna were continued, with the same result as in Case No. I.

The other remaining cases were uncomplicated ones, and yielded to the oxalate of cerium most satisfactorily, being relieved with the same promptness as the preceding ones. The rule was also observed in each case to continue the remedy one week longer than there was any existence of the whoop, to obviate the possibility of a relapse.

In conclusion, it is claimed for oxalate of cerium that:

1. It decreases the attacks, and thereby reduces the violence of the disease, often checking it instantly.
2. It is easily administered, as only one dose is required in twenty-four hours.
3. Nocturnal quietude is insured.
4. The possibility of complications is lessened.

In this city, as Dr. John C. Peters has shown in the *Record* of May 24th, pertussis is tending to epidemic frequency, and 219 deaths have occurred from it in the first quarter of 1879. For this reason, the evidence furnished by the limited number of ten cases was thought to be sufficient in urging a trial for oxalate of cerium.

Progress of Medical Science.

BLUE URINE.—M. A. Robin recently presented to the *Société de Biologie* several specimens of blue or green urine passed by patients suffering from different affections. Several years ago he submitted to the society a specimen of blue urine passed by a hysterical patient. This urine, when treated with bases, assumed a more intense blue color; when treated with acids, it became red. Since then he has met with nine cases of this anomaly: six of them were convalescents from typhoid fever; one was suffering from chronic myelitis; and two from hysteria. In 1823 Breconneau reported a case of blue urine, in which he claimed to have found a peculiar substance, which he called cyanurine. He did not, however, state what this cyanurine was. M. Robin distinguishes two kinds of blue urine: 1st, that which is blue spontaneously, and 2d, that which becomes blue as a result of ammoniacal fermentation. Of this second class he makes also two subdivisions: 1st, that which becomes blue only on the surface, the change being due to the presence of inferior organisms of a blue color; and 2d, that which is charged with indican.—*La Tribune Médicale*, March 30, 1879.

THE PLAGUE.—The following brief abstract of a lecture delivered by Professor Virchow, before the Medical Society of Berlin, contains the essence of the views held by that distinguished observer concerning the plague: He agrees with old observers regarding the swelling of the lymph-glands, the so-called buboes, as the most striking feature in the disease. It is still an open question, however, whether or not these buboes constitute an essential factor of the disease; whether the so-called fulminating forms may not run their course without glandular swellings. The glands accessible to palpation are not the only ones involved; the entire gland-chains appertaining to the individual regional affections are progressively attacked. The characters of the glandular swellings are analogous to those of the gland-swellings in typhoid fever; they consist of cellular hyperplasia, with more or less hyperæmia and hemorrhagic effusions. The mode of ulceration, however, is perhaps different. In typhoid a small spot of central necrosis forms, and suppuration takes place around it, but within the limits of the gland; in the plague, on the contrary, according to the more trustworthy observers, the suppuration takes place around the gland. Professor Virchow is not disposed, however, to accept this statement unqualifiedly, although he possesses no facts on which to base

a contrary opinion. He believes that in the recent Russian outbreak the disease was the oriental, and not the Indian plague; the last outbreak of the latter took place in 1888.

Next in point of interest to the buboes are the carbuncles. These occur in about one-fifth of the cases. They are located on the surface of the extremities and on the breast, and present the closest resemblance to the carbuncles of anthrax. They commence as small, red swellings, which grow very rapidly, and extend to the deeper structures; a vesicle forms on the top of each swelling, and bursts, and an ulcer then develops, which destroys the tissues deeply. Professor Virchow has not met with any description which would lead him to admit the occurrence of carbuncles in the internal organs. The petechiæ are often accompanied by larger ecchymoses. These are met with in the internal organ as well as on the surface of the body; and, in fact, the internal hemorrhages seem to be more constant than the external. In the clinical histories of the oriental plague Professor Virchow has been struck by the great frequency of hemorrhagic affections of the urinary organs; hemorrhages from the lungs are much less frequently recorded. The splenic tumor is a very constant and important symptom. Swellings of the liver and kidneys have also been reported; they are probably due to acute parenchymatous changes.

Professor Virchow believes that the epidemic which raged in Kurdistan and Mesopotamia, and was declared by the Turkish surgeons to be petechial typhus, was really the plague. He draws attention to the fact that specific local affections, and more especially glandular affections, are exceedingly rare in typhus, of which the exanthem, the splenic tumor, and the parenchymatous swelling of the liver and kidneys, and sometimes of the cardiac muscle, constitute, as a rule, the sole lesions. When told that an epidemic of petechial typhus, with "metastasis bubonica," rages in any place (as in Salonica), he is disposed to believe that the disease is really the plague. With regard to prophylaxis, he believes in the efficacy of a strict water quarantine, and of isolation, by means of successive cordons of soldiers, of small, affected districts; but thinks the attempt to quarantine the entire Russo-German boundary impracticable. For the disinfection of garments, etc., he prefers dry heat, which he believes to be much more effective than sulphurous acid. He thinks that, of all diseases, anthrax presents the closest analogy to the plague.—*Berliner klin. Wochen.*, March 3d.

CIRRHOSIS OF THE LIVER COMPLICATED BY THROMBOSIS OF THE PORTAL VEIN.—A case of cirrhosis of the liver occurred in the service of M. Raynaud, at the *Lariboisière*, in which the following points of interest were noted: 1st. Total absence of the classical symptoms of cirrhosis ascites, and dilatation of the cutaneous abdominal veins, thus obscuring the diagnosis of the hepatic affection; 2d. The rare complication of thrombosis of the portal vein; 3d. The occurrence of hemorrhages into the stomach and intestines, which led to an error in the diagnosis; 4th. The absence of ascites, with the complete obstruction of the portal vein by a thrombosis which the anatomical lesions demonstrated to have existed for some time. It would seem, indeed, that the first effect of obstruction to the portal vein should be a more or less rapid collection of ascitic fluid, together with dilatation of the collateral veins; this, at least, is the result of most of the observations of this accident. From twenty-eight observations of obstructions of the

portal vein, Frerichs cites but three cases in which there was no ascites, but in these there were hemorrhages into the stomach or intestines, which this author believed to be supplemental to the ascites. In the present case, however, the intestinal hemorrhages could not be due to the thrombosis, for the hæmatemesis extended over a period of twenty months, and the thrombosis certainly occurred at a later period of the disease, after the occurrence of the first hemorrhage. The following explanation is therefore given of the symptoms presented: In the course of cirrhosis the patient is seized with hemorrhage from the stomach, caused by the interference with the portal circulation, and the tendency in hepatic disease toward multiple hemorrhages. In the later stages of the disease thrombosis occurred spontaneously, favored by the obstruction to, and consequent slowing of, the portal circulation; by the very marked anæmic condition of the patient, and by the tendency to coagulation of the blood of cachectic subjects. The absence of ascites after the portal obstruction can only be explained by the occurrence of abundant intestinal hemorrhages during the last few days, which acted as a derivative, and depleted the abdominal system.—*Le Progrès Médical*, March 8, 1879.

FATTY EMBOLISM OF THE LUNGS FOLLOWING FRACTURES.—M. Déjerine presented to the *Société Anatomique* the notes of two cases in which he observed fatty embolisms in the lungs after fractures. In the first case the lower part of the leg was crushed by a railway car; a longitudinal fracture of the tibia, extending upward into the knee-joint; death followed in two and a half hours. At the autopsy the lungs and heart were removed together and very carefully examined. The blood in the right ventricle contained a large quantity of fat in little drops, which dissolved in ether, and were colored black by osmic acid. The pulmonary vessels were gorged with fat, the arterioles, venous radicles, and capillaries containing masses three, four, and five millimetres in length, which refracted light strongly, disappeared under the influence of ether, and showed, after the action of osmic acid, a deep black color, which traced the vascular network almost completely at certain points. The examination of all parts of both lungs gave the same result. The second case was no less convincing than the preceding. It occurred in the service of Dr. Brouardel, of San-Antonio, and the lungs were examined in conjunction with M. Mayor. The patient died thirty-six hours after receiving a fracture of the right parietal bone, and, as in the former case, the pulmonary vessels contained fat, but in somewhat less quantity. In neither case were the other organs examined for fatty embolism.—*Le Progrès Médical*.

CHOLECYSTOTOMY.—Mr. Bryant presented the following case to the Clinical Society of London: A single woman, aged 53, was admitted into Guy's Hospital, under Mr. Bryant's care, in July, 1878, with two discharging sinuses of three years' standing, following an abscess which had been previously forming for two. At first the sinus was laid open and pus alone escaped, but subsequently, as bile flowed in quantities from the wound, an exploratory operation was performed, and at a depth of two inches a biliary calculus one inch long turned out of the gall-bladder. Everything went on well after the operation, and, although bile continued to escape from the wound for about two weeks, the parts were quite healed in about four months, and the patient left the hospital cured. The author brought the case before the society as an en-

couragement to surgeons to try their art in allied cases, for he was well prepared to support the suggestions of Dr. Thudichum, made twenty years ago, "that gall-stones might be removed from the gall-bladder through the abdominal walls;" and he pointed out that under certain circumstances the operation was justifiable, when the sinuses by their presence were setting up inflammatory and suppurative changes about the gall-bladder, without any obstruction to the bile duct, as well as in that more serious class of cases in which the cystic or common bile-duct was obstructed, and dropsy of the gall-bladder with jaundice complicated the case, as shown by the cases of Dr. Sims, and Mr. G. Brown.—*The Medical Press and Circular*, May 14, 1879.

SUTURAL JUNCTION OF THE ULNAR NERVE.—In reporting this case to the Clinical Society, Mr. Hulke said the procedure was a rare one, but where practised had already given most satisfactory results, and held out the promise of restoration to many an otherwise crippled limb. His case was interesting from the long interval (fifteen weeks) that elapsed after the injury before the operation was performed, and for the speedy restoration of commencing nerve function, which was only three or four weeks after the operation. The patient, a blacksmith, æt. 58, was struck by a slate from a roof in a hurricane, across the inner side and front of the elbow. The wound healed slowly, and was painful from the first, the pain assuming a neuralgic character. The forearm and arm wasted, the man's health suffered, and he was quite unable to do any work. Fifteen weeks afterward, all parts supplied by the ulnar nerve in the hand were numbed and cold, and the scar in front of the elbow was exquisitely tender. The patient was then chloroformed, and an Esmarch's bandage put on. The ulnar nerve was exposed at the elbow and found to be completely divided, and the two ends widely separated. The upper end was bulbously swollen and dragged out of its course by the shrinking scar; the lower end was shrivelled. In both ends were minute particles of slate embedded. Both ends were removed by clean transverse sections, and were then found to be three-quarters of an inch apart. In order to bring them together, the upper end was stretched and drawn down and joined as closely as possible to the lower one by four silk sutures passed through the sheath. Absolute contact was not attainable. The operation was done and the wound afterward dressed antiseptically. The neuralgia ceased at once, and did not recur, and in less than six weeks the patient returned home. Sensation, which had begun to return about a month after the operation, rapidly increased, so that, upon leaving the hospital, the man went at once to his work. In the discussion which followed, Mr. Hulke remarked that the ends of the nerve after the operation were not absolutely touching, but were as nearly as possible together without actual contact. Other cases, with a longer interval than his own between the injury and the operation, had been recorded. He had himself, in excising pieces of nerve for frontal tic, been sometimes quite annoyed at the rapidity and thoroughness with which nerves were repaired: in one instance, after excising nearly half an inch, sensation returned. In the present case Mr. Hulke thought he had removed three-quarters of an inch of the nerve at the time of the operation. As to the trophic condition of the skin, he could say nothing about it. The patient had long since left the hospital and was now at work.—*The Medical Press and Circular*, May 14, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 19, 1879.

SCHOOL HYGIENE.

THE close of the school year and the commencement of the summer vacation suggest many topics connected with school management, past and prospective, which invite passing comment. In glancing over the past, and viewing what has been done in the way of perfecting our systems of public education, we have, as a young country, just reasons for pride. Whatever else may be said of frauds, in other departments, concerning the prostitution of the general welfare to political purposes, that of education has been more or less exempt. The desire has been in every part of the country to perfect the system, to keep it untrammelled of mere party influences, and raise it to the highest possible level of utility. So apparent, indeed, is this, that an inordinate zeal is manifested, and the true end of education is in danger of being lost sight of in the effort to teach beyond the capacity for learning. But this is an evil so well recognized by every calm thinker, be he lay or professional, that we hardly dare refer to it without an apology for so doing. Still, so long as there is a wrong, all efforts to right it are excusable, even to the point of reiterating old truths, using old arguments, or reciting threadbare tales.

It is encouraging, however, to think that the numerous discussions of the subject have not been in vain, that new ideas of education are beginning to prevail, that the cramming system is losing popularity with our best educators, and that the promise of a better future is brightening before us. This is more particularly true with regard to some of our private institutions, and notably with some of our leading colleges. The public schools, although they have made notable progress in this respect of late years, are still very much in the background in regard to the proper use of their privileges. The agreeable offset to the cramming system which prevails in these institu-

tions is the fact that the vacations are long and give good opportunities for recruiting.

The system of our public schools, at least those in this city, is founded apparently upon the principle of making the best show in the school examinations. With such an end in view, the teacher is necessarily stimulated to get over the most ground possible, and by dint of severe drilling to make the best exhibit of the results to the examining board. No one needs to be told that the scholars are not only damaged mentally and physically, but are really worse off, as far as learning is concerned, than if no efforts had been made to educate them. So long, however, as the trustees demand such a showing on the part of the teachers, so long will the latter crowd the capacities of their pupils to the utmost.

Coupled with this system are the unsanitary conditions which surround most of our public schools. This remark does not apply particularly to those of this city. All over the country complaints arise regarding this subject, and it is to the credit of the profession that it has spoken so plainly upon matters of school hygiene, and has used its influences so effectually in creating a proper public opinion.

While our schools in the city are situated for the most part in unhealthy localities, in tenement districts, and are surrounded by all the possible unsanitary conditions, our district schools over the country are, relatively speaking, no better favored. The country school-house is generally poorly built, of inferior capacity, with no provisions for ventilation, and situated in the most barren spot in the whole district. Added to these drawbacks is not unfrequently the positive unhealthfulness of the locality. Stagnant pools surround the building, the drainage is imperfect, and the only redeeming feature in the whole picture is that the reeking privy-vault is sometimes respectably distant from the house.

But we are not called upon to dwell upon what must be facts well appreciated by all, but to make their reiteration another excuse for what, whether from a purely mental, or from a more strictly physical point of view, we may legitimately style sanitary reform in school management. The opportunities to such an end are given school managers during the present vacation. During the summer absence of the minister the church is renovated and put in decent order, and why should not the school-room, occupied so many hours more by our children, share the same fate? There is enough to do in increasing the ventilation and improving the surroundings of all our schools, and particularly so in our own city. It seems almost like wasting words to urge these obvious duties on all concerned, but we are willing to risk our efforts as fruitless in the consciousness of speaking once more for the school child, who is loaded down with tasks, and who is wearied with long hours of study, poisoned by the foul air in the school-room,

and perhaps permanently ruined in health. We have faith, however, that eventually the public will be educated to the point of demanding these necessities, and we patiently bide the time.

THE TENEMENT-HOUSE ACT.

THE Board of Health has received the requisite appropriation for carrying out the provisions of the new tenement-house act, and have commenced a series of improvements which must eventually be of great benefit to those compelled to inhabit these structures.

The new law greatly enlarges the powers of this board in the supervision of proposed buildings for tenement-houses and the inspection of existing structures. For several months past the Board have required those proposing to erect tenement-houses in this city to submit to them the plans for approval, with special reference to light and ventilation. The new law so amends the old act that, hereafter, it shall not be lawful to erect for, or convert to, the purposes of a tenement or lodging-house, a building on any lot where there is a building on the same lot, unless there is a clear open space exclusively belonging thereto and extending upwards from the ground of a distance varying from ten to twenty-five feet, according to the height of the building.

At the rear of every such house there shall be a clear open space of not less than ten feet between it and the rear line of the lot, subject to modification by the Board of Health in special cases.

Another provision of the act is that no one continuous building for tenement-house purposes shall occupy more than sixty-five per centum of the said lot, and in the same proportion if the lot be greater or less in size than twenty-five by one hundred feet. This provision, however, does not apply to corner lots, and may also be modified in special cases by a permit from the Board of Health.

One of the sections of the new law provides for a thorough system of ventilation, and regulates the height from the floor to the ceiling, and the existence of windows connecting with the external air. The total area of window or windows in every room communicating with the external air shall be at least one-tenth of the superficial area of every such room, and the upper half shall be so made as to open the full width.

Provisions are also made for the ventilation of every room which does not communicate directly with the external air, and is without an open fire-place, by special means of separate air-shaft, extending to the roof or otherwise, as the Board of Health may prescribe.

By section 8 the Board is empowered, in cases of overcrowding, to issue an order requiring the number of inmates to be reduced within ten days.

This is a matter which has long been discussed by the health authorities, but the lack of proper provisions, in previous acts, has crippled their movements

to such an extent as to render their efforts at making the necessary reforms almost powerless.

Giving the Board of Health such absolute power in the matter of constructing buildings from a sanitary point of view, throws upon it a great responsibility. We have no doubt that they are prepared to meet it, and, as the appropriation has been made, that the money will be judiciously spent. Of course, considerable time must elapse before the necessary inspections are completed, but when this is done we shall probably have a report of the doings of the inspector which will give us more insight into construction of tenement-houses, and the manner in which their occupants live, than we have hitherto had. The original law contemplated the levying of a tax upon each owner of a tenement-house, but by some political manœuvre this personal tax was transferred to the city treasury. Although it would be more equitable to have those persons who are directly benefited by the tenement-house system pay for necessary improvements, it nevertheless cannot be made a cause for grievous complaint. The appropriation is not excessive, as compared with others for which there is no benefit to the citizens at large. We are quite confident that, with the execution of the law left to the Board of Health, nothing will be omitted which favors its success.

YELLOW FEVER.

DURING the past week the country has been startled at the reappearance of yellow fever in Memphis, the city which suffered so severely from the epidemic last year.

At the present writing we are happy to be able to chronicle that it proved to be a superlative scare, for no new cases have developed within five days, and the prevailing impression with the health authorities of the city is that there is, at present, no further occasion for alarm. The National Board of Health was prompt in issuing recommendations which were designed to throw most effective barriers in the way of the spread of the disease from infected districts, and there has been a praiseworthy readiness on the part of exposed localities to comply with those suggestions. We hope the cordon of safety will be strongly drawn; that the desire to cheat conscience into a false security will not be manifest; and that extraordinary homage to a political feature will not be seen. Frantic partisanship to law is usually just in proportion to the ignorance of its spirituality, and, when the spirituality is removed, the vengeance of the letter is sure to be felt. The letter and the true spirit will save the nation from the inroads of the destroying pestilence. The letter kills only when it is separated from the spirit, and of the separation the people alone are guilty. The union of the law and the hearts of the people who wish to secure the greatest good for the greatest number may save thousands of valuable human lives and millions of dollars' worth of property.

Reviews and Notices of Books.

THE ANATOMY OF THE JOINTS OF MAN. By HENRY MORRIS, M.A., M.B. Lond., F.R.C.S., Senior Assistant Surgeon to, and Lecturer on Anatomy and Demonstrator of Operative Surgery at the Middlesex Hospital. Philadelphia: Lindsay & Blakiston. 1879.

THIS book contains 450 pages, and is made up of a complete anatomical description of each of the joints in the human body. It is therefore a valuable book both for study and for reference. It supplies a want long felt, for, although we have numerous works on human anatomy in which the anatomy of the joints is given, it has been, to a very great extent, piece-meal, and the student has been unable to obtain a complete knowledge of the anatomy of any particular joint without being obliged to refer to separate portions of the same volume. In Dr. Morris's book can be found a complete anatomical description of each joint, embracing the ligaments, the synovial membrane, the bursæ, the relations of the articular surfaces and the muscles, the nerves, the blood-vessels, and the movements permitted. The first two chapters are devoted to general remarks, a description of the various structures which enter into the construction of a joint, the varieties of joints, and the varieties of diarthrodial joints. With Chapter Three is commenced a description of the articulations of the skull which extends through Chapter Four. Part II. embraces four chapters, which contain descriptions of the joints of the spinal column, the lumbo-pelvic union, the pelvis, and the thorax. In Part III., containing seven chapters, the joints of the upper extremity are described; while Part IV., embracing five chapters, is consumed in describing the joints of the lower extremity. The old *pons asinorum* the Y ligament of the hip-joint, receives due inspection in this part, the author believing that "although the appearance may be produced by dissection, it does not naturally exist." The book is well illustrated, many of the plates being colored. In general accuracy and fulness it seems to be an addition to previous descriptions of some of the joints, and we are of the opinion that the author is entitled to credit for exhibiting a new method of stating what is already known. The copy which we have is poorly bound, and we hope is not a fair specimen of the work of these old and well-known medical publishers.

HAND-BOOK OF DIAGNOSIS AND TREATMENT OF DISEASES OF THE THROAT AND NASAL CAVITIES. By CARL SEILER, M.D., Lecturer on Laryngoscopy at the University of Pennsylvania; Chief of the Throat Dispensary at the University Hospital; Curator of the Pathological Society, etc. etc. With thirty-five illustrations. Philadelphia: Henry C. Lea. 1879. 12mo, pp. 156.

THIS little volume is divided into fourteen chapters; the first five are devoted to the study of laryngoscopy and rhinoscopy, and the usual methods of local treatment by their aid. The remainder treat chiefly of the more common diseases of the throat and nasal passages, the final one consisting of a table of symptoms for differential diagnosis, similar to that of Mr. Browne, of London, in plan, but not exactly like it in execution.

The attempt to crowd so much into a small compass impairs the value of the work as a manual of diagnosis and treatment. Had its pages been made simply a manual of laryngoscopy and rhinoscopy, without any professions as a manual of therapeutics, it would

have better supplied a want long felt by medical students and others for concise, practical instructions in the manipulation of mirrors and instruments, especially since the edition of Mackenzie on the use of the laryngoscope has been out of print.

We can heartily commend the volume to the medical student as a good guide to the study of laryngoscopy and rhinoscopy, penned from the hand of a gentleman fully familiar with the subject of which he writes. The therapeutic portion will require supplementary study from other sources as the requirements of the practitioner gradually call for fuller information.

There are many good points in the volume, some of them evidently original. Of these we may specify a recommendation, in those rare cases where it becomes requisite to resort to a mechanical appliance to elevate a depressed epiglottis, to attach to the epiglottis a small artery forceps, such as is used for temporary compression, with a string and small weight attached to it; the denunciation of the use of brushes mounted in brass caps, and which are affected by the reagents used in applications to the larynx, etc.; the recommendation to burn off molten caustic from the end of a probe, after it has been used, so as to destroy all infectious material that might cling to it; the recommendation to frequently moisten a sponge with lime-water and the like, when employed in a respirator, to protect workmen from the vapors of acids; the use of a guarded pair of scissors for amputating an elongated uvula, an original form of which is illustrated; the application of a coating of nitrate of silver to the surface of an amputated tonsil to protect the wound from the influence of the air.

The chief criticisms we have to make are as follows: The great advantage claimed for a head-rest in laryngoscopic manipulations is not generally acknowledged by laryngoscopists; a head-rest is, in fact, rarely used, and much more rarely requisite. The use of the stem of the rhinoscopic mirror to depress the tongue, as recommended by the author, has almost always been found by the writer to be more more difficult and unsatisfactory than the use of a special tongue-depressor, be it nothing more than the forefinger, which, by the way, is sometimes the most satisfactory appliance for the purpose. In the figure representing the normal larynx in respiration, the thyroid cartilage is designated as the cricoid, and the cricoid as the first ring of the trachea; a repetition of the mistake made in Mackenzie's volume, from which the illustration has been taken. A mistake is made, too, in asserting that the well-known pyriform swelling over the supra-arytenoid cartilages, characteristic of laryngitis phthisica, is not mentioned in any of the books on the subject. The prevalence of post-nasal catarrh, as it is here termed, is evidently over-estimated.

The pathological portions of the book are concise, and in accordance with the advanced views of pathologists. The article on aphonia, and the allusions to voice throughout the text, are especially commendable as far as they go; and it is evident that had not the author been hampered by the effort to cover a great deal of subject-matter within limited space, he would have done himself a great deal of credit. Of the remaining subjects of disease, while we can only say that they are much more unsatisfactorily treated, for a similar reason it is to be stated that the principles of therapeutics inculcated are in the main judicious. Some recommendations of electric treatment and counter-irritation are not usually resorted to, but experience in these particulars and in others differs very much with different observers.

In conclusion, we would express the belief that Dr. Seiler has given us a little guide that can be safely placed in the hands of medical students, to supplement the practical instruction in dispensaries and hospitals, and to assist the practitioner in familiarizing himself with the details of manipulation which he has not had the opportunity of observing personally. As such, it will no doubt reach a wide circulation, in the United States at least, and stimulate the author to more ambitious efforts.

DISEASES OF THE INTESTINES AND PERITONEUM. By JOHN DYER BRISTOWE, M.D., J. R. WARDELL, M.D., J. W. BEGIE, M.D., S. O. HABERSHON, M.D., T. B. CURLING, F.R.S., and W. H. RANSOM, M.D. New York: William Wood & Co. 1879.

This volume forms the fifth of Wood's Library of Standard Medical Authors. Most of the articles are from Reynolds's System of Medicine, the only exceptions being those articles on Diarrhœa, Diseases of the Duodenum, and Abdominal Tumors, which are from S. O. Habershon's work on "Diseases of the Abdomen." The reputation of the writers on these different diseases is so well known, and the articles themselves have been so highly spoken of, that any special notice of them is uncalled for. The volume is indispensable to those who are not fortunate enough to possess Reynolds's System of Medicine. We think that the publishers are to be congratulated on the wisdom of their selection, and are entitled to the thanks of the profession for thus placing within the reach of every one books on such practical subjects.

HOW TO TAKE CARE OF OUR EYES, with Advice to Parents and Teachers in regard to the Management of the Eyes of Children. By HENRY C. ANGELL, M.D., Professor of Ophthalmology in Boston University, etc. Boston: Roberts Brothers. 1878.

This is a neat little book, in which considerable information about the care of the eyes is given in a compact and simple form. Some parts of it, we think, show evidences of carelessness in its preparation.

In the present state of knowledge, the facts regarding weak sight ought to have been stated more fully and more clearly than is done here. Some of the symptoms of asthenopia are given, and then follow some rules to be observed by those suffering from this trouble. The author then says (p. 17): "If the weak sight does not improve satisfactorily under the observance of the rules given, it will be necessary to resort to the use of convex glasses." Now, the symptoms of asthenopia which have been detailed may arise from several different conditions. It is true that the majority of weak-sighted readers of Dr. Angell's book will probably have hypermetropic eyes, and will probably need convex glasses; and yet it is quite possible that some of them will be weak-sighted from a very different cause, and, indeed, from a cause for which convex glasses would be just the wrong remedy. The author further says, "for the benefit of such as are unable to get proper advice," that "the convex glasses will probably require to be of about 48-inch focus." It seems to us that this kind of prescribing is of questionable value, even for those whose asthenopia arises from hypermetropia. Of course, it might be quite erroneous for a different cause.

On page 23 we read: "In over-sight one does not see with perfect clearness and ease at any distance. Very fine type like this [I Jaeger], for instance, is not read even by those too young to be old-sighted, in a good light, quickly, fluently, and without effort." We infer that the author is speaking merely of the ordi-

nary testing of a patient for over-sight, and without the use of atropine. If this inference is correct, the passage quoted is untrue as to hundreds of cases of "over-sight"—even of the class which present annoying asthenopia. We think that the distinction between manifest and latent hypermetropia should have been fully stated, as it is a very important matter, and at the same time very easily understood.

The word *hypermetropia*, by the way, we have not found in the book. This seems to be an unfortunate omission, especially as the technical name for near-sight—*myopia*—is given.

A frontal headache is mentioned as one of the most common general symptoms of near-sight in school-children. We think that headache from hypermetropia is much more common, but we find no allusion to this in the book. We think it would have been appropriate, also, in a work of this kind, to have mentioned some of the interesting facts regarding other neuroses which seem to be connected with errors of refraction.

On page 22 we find: "In near-sight the eye-ball is too full or convex, and in over-sight it is too flat." This is a poor definition of the causes of these conditions. They are more correctly defined, however, in other places.

In explaining the causation of presbyopia, no mention is made of any failure of power in the ciliary muscle.

On page 16 is the following: "Never read when lying down: it is too fatiguing for the accommodative power." Other reasons why reading when lying down is so injurious should have been given.

Among the imperfections of the eye as an optical instrument, the author mentions "spherical aberration due to a lack of symmetry in the cornea and lens, or to a lack of correspondence in their axes. This makes the refractive power of the two inharmonious, creating a slight astigmatism." This is rather obscure, if it is intended to explain the natural astigmatism common to all eyes. Usually there is an astigmatism of the cornea, and of the lens, and one tends to neutralize the other.

As directions are given regarding the management of inflammations of the eyes, we think it would have been well to have mentioned some of the very common applications which ought not to be used,—such, for instance, as poultices. Having alluded to sympathetic ophthalmia, the remarks upon it might well have been a little fuller, as the disease is so important, and such sad results are constantly seen because laymen do not know more about it.

CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL, INCLUDING THE CHEMISTRY OF THE UNITED STATES PHARMACOPOEIA. By JOHN ATTFIELD, M.A., and Ph.D., of the University of Tübingen.

ATTFIELD's Chemistry has been so long before the profession, that there are few interested in the subject who are not familiar with it.

It is in the fullest sense of the word practical, and as such a valuable aid in the laboratory. Nevertheless, it does not fail to inculcate and explain the general principles of chemical philosophy.

The department of organic chemistry is very full in all that interests the medical and pharmaceutical student.

The artificial as well as the natural alkaloids are studied and their production explained, and in the end of the book is an appendix giving a table of official tests for impurities in pharmacopœial preparations.

The portions of the work of special interest to the practitioner are those devoted to toxicology and the examination of morbid urine and calculi.

The student of practical chemistry who has not the advantages of laboratory instruction, will find a valuable guide to his work in the volume before us, as the details are made so plain as to allow him to follow the author as an instructor.

AIDS TO FAMILY GOVERNMENT, according to FROEBEL. By BERTHA MEYER. Translated from the Second German Edition by M. L. HOLBROOK, M.D. To which is added an Essay on the Rights of Children and the True Principles of Family Government. By HERBERT SPENCER. New York: M. L. Holbrook & Co. 1879. 8vo, pp. 208.

It is a popular and perhaps natural custom to scoff at books as helps in treating so wayward a portion of humanity as children. We do not believe, however, that any one can read the present work without being impressed with its value. This value is due not so much to the practical hints given, as to the fact that there is throughout the book an undercurrent of earnest purpose to impress the reader with the importance of rightly educating the child, and of the immense difference which a proper and improper training can make in his future character and career. There are hereditary traits which no amount of education or force of environment can entirely eradicate; but, if it is possible to do anything in the way of modification or improvement, childhood is the time. Books which inculcate the importance of this deserve, therefore, both attention and encouragement.

EPITOME OF SKIN DISEASES, with Formulæ. By TILBURY FOX and T. C. FOX. Second American Edition. Phila.: H. C. Lea. 1879. 8vo, pp. 216.

This edition has been enlarged to three times its original amount, and two-thirds of it is newly written. Its contents are admirably arranged, the symptomatology, pathology, classification, etiology, etc., being first treated of in a general way, and then the particular diseases taken up in alphabetical order. The names of the authors are sufficient indorsement of the reliability of the work, and in the narrow range to which epitomized works are confined this deserves a high place.

The classification of skin diseases adopted by the American Dermatological Society has been inserted.

NINTH ANNUAL REPORT OF THE NEW YORK OPHTHALMIC AND AURAL INSTITUTE for the year 1878.

This Institution comprises a dispensary and a hospital. In the former there were treated during the past year 4,084 cases for diseases of the eye, and 894 cases for diseases of the ear. In the hospital 394 cases were treated, and so many of these were pay-patients that the Institution is to a large extent self-supporting. There were 355 important operations on the eye, and the success in these seems to have been extraordinary. Out of 60 operations for primary cataract 54 were successful. In 68 operations on the iris there were no failures; nor are there any recorded as resulting from the remaining 232 operations.

The School of Ophthalmology and Otology connected with the Institution consists of four professors, by whom four lectures a week are delivered, besides clinics. It is stated that the plan of instruction adopted is not surpassed by any other institution either here or in Europe.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 15, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.10 P.M. The minutes of the previous meeting were read and approved.

The Chairman of the Committee on Necrology, Dr. F. V. White, announced the death of Dr. H. S. Downs, one of the original members of the Academy.

SELF-LIMITATION IN CASES OF PHTHISIS.

DR. AUSTIN FLINT read a suggestive and interesting paper upon the above subject. It was more than forty years since Jacob Bigelow applied the term "self-limited" to certain diseases, and gave to it the following definition: "By a 'self-limited' (disease) I mean one which receives limits from its own nature, and not from foreign influences, which, after obtaining a foothold in the system, cannot, in the present state of our knowledge, be eradicated or abridged by art, but to which there is due a succession of processes to be completed after a certain time; which processes and time may vary with the constitution of the patient, and may tend to recovery or to death, but are not known to be shortened or greatly changed by medical treatment."

Since the publication of that discourse a host of diseases had been shown to be self-limited, but especially the essential fevers, inclusive of acute pneumonia, and many acute inflammations. By observations made in 1863, Dr. Flint proved that acute articular rheumatism, and also in 1875, that acute dysentery, belonged to that category.

It was interesting to inquire, in different diseases and in different cases of the same disease, how far the course and termination might be due to self-limitation. The object of the paper was to inquire how far the favorable course and ending of pneumonic phthisis were determined by self-limitation. So long ago as 1858, he published a paper in the *American Journal of Medical Sciences* in which it was claimed that pulmonary phthisis might be self-limited, and an analysis was given of twenty-four cases which had terminated in recovery.

That claim had been renewed in 1863, in a paper that appeared in the published Transactions of the New York Academy of Medicine, and it had since been reiterated in his work upon the Practice of Medicine, and more recently in his work upon Phthisis. Of all diseases, phthisis was the least expected to end favorably from intrinsic tendency. The cessation of its progress was considered as implying some extrinsic agency by means of which it had been arrested.

THINGS NECESSARY TO BE ESTABLISHED.

Dr. Flint inquired, What was necessary to establish the fact of a favorable course, and to prove of any other disease that its favorable course and termination were due to self-limitation? A disease belonged in that class when it ended in recovery independent of hygienic or therapeutics; in other words, when the favorable course and termination were due to intrinsic tendency, even though they were promoted by judicious treatment. On the other hand, a favorable intrinsic tendency might be obstructed by injudicious treatment.

Self-limitation could not be inferred from a single case, or a few cases, because the course and termination of disease might be affected by influences which were extrinsic, but not apparent. The cases observed, therefore, must be large. They must be carefully and honestly observed. There must be no room for doubt with regard to the accuracy of diagnosis. At once the difficulties became obvious which prevented the requisite study and observation, and the cases in which the requisite conditions were fulfilled were rare. But during a period of thirty-four years Dr. Flint had observed the histories of a number which he believed to be amply sufficient to establish the statement that

IN CERTAIN CASES PNEUMONIC PHTHISIS, OR PULMONARY CONSUMPTION, CEASED TO BE PROGRESSIVE AND MIGHT END IN RECOVERY FROM SELF-LIMITATION.

He had not included acute tuberculosis under that head, and had also excluded the disease known as interstitial pneumonia or fibroid phthisis. He should consider the term pneumonic phthisis as applicable to all cases of phthical disease exclusive of acute tuberculosis and interstitial pneumonia.

Of 670 cases of phthisis, the list embracing a few cases of acute tuberculosis and interstitial pneumonia, 44 ended in recovery. In 31 cases the disease ceased to progress, remained non-progressive for several months, and in a majority of the cases for many years. In 31 cases the phthical disease might be considered as having ended, complete recovery not taking place. Those 31 cases he regarded as hardly less valuable in the study than those which terminated in recovery. In 75 cases, therefore, there was either recovery from phthisis or the disease ceased to progress.

Such a collection of cases offered a rich field with reference to several points of inquiry; but only one was taken up, namely, the proof of self-limitation.

In how many of the cases was it evident from the history that the cessation of the disease was not due and its progress not arrested by medicinal or hygienic treatment? Answer to that question furnished proof of self-limitation.

MEDICINAL TREATMENT.

Of the 44 cases which ended in recovery, there were 28 in which there was no medicinal treatment to which arrest of the disease could be attributed. In the remainder of the cases medicinal treatment consisted in the use of simple tonics, but in none of them could the treatment be considered curative.

Of the 31 cases in which the disease was non-progressive without recovery, there were 15 in which there was no medication by which the disease was controlled, and in several none whatever.

In the two groups of cases, namely, those ending in recovery and those in which the disease was non-progressive, medicinal treatment was absent in about equal proportion; in the first group, 23 of 44; and in the second group, 15 of 31.

HYGIENIC TREATMENT.

In a considerable proportion of cases change in climate and other hygienic measures were not of such a character that potential influence could be attributed thereto.

Dr. Flint then referred to cases already published in his work on Phthisis, the histories of which he claimed established self-limitation in cases of phthisis.

He was unable to quote any authors who declared in distinct terms that phthisis was a self-limited dis-

ease. The *curability* of phthisis, however, was by no means a novel doctrine. All observers of much experience agreed that patients had recovered from pulmonary phthisis even after the formation of cavities, but in all those instances the disease had been supposed to be cured sometimes by medicinal, sometimes by hygienic treatment, or by both combined. The position had not been taken by others that the recovery was spontaneous in some of those instances.

Dr. Flint's *first* object was to show that he had been warranted by facts in taking the position that self-limitation, in cases of phthisis, was established.

His *second* object was to speak of self-limitation as bearing upon conclusions drawn with respect to the treatment of phthisis. If the disease ended in recovery, exclusively from intrinsic tendency, it was evident that self-limitation must be more or less concerned in cases in which recovery took place under different measures of treatment; that it was a factor co-working with certain measures. When that factor was feeble or wanting, curative treatment would not probably be of much avail. Allowance must be made for that factor in estimating the value of curative treatment. The extent of its working must be different in different cases; sometimes considerable, sometimes moderate, and sometimes slight. Recovery from phthisis, in order to become proof of the success of any method of treatment, must take place in a number of instances, so large as to render it certain that the real agency could not have been self-limitation. It would be unjust to say that therapeutics were powerless, because when combined with self-limitation they would probably save many cases which would not otherwise recover.

CHANGE OF CLIMATE.

Dr. Flint regarded change of climate as a most important measure in the early stage of the disease. With reference to the part of the world best suited for consumptive patients, experience was discrepant. He then referred to two patients who visited Nice; one was loud in praise of that locality for consumptives, and the other was equally energetic in disparagement of Nice. Self-limitation in one was effective, in the other it was wanting. The only truly scientific plan of investigation respecting changes of climate was to study results in a considerable number of cases. Dr. Flint then made an analysis of 74 cases in which temporary change of climate was an important, and in some the chief measure of treatment. Of the 74 cases, 9 ended in recovery, and in 13 the disease was non-progressive. 23 out of 74 cases were regarded as a number sufficiently large to warrant the conclusion that more or less curative influence was due to climate. To those were added other cases in which the disease was slowly progressive, and in only 11 of the 74 cases did it appear that there was no improvement following change of climate.

One of the most striking recoveries took place in New York City, and without any important medication.

The inquiry with regard to the best place for consumptives was important, but for lack of time it was essentially waived with the remark that the selection of the resort must be governed by the circumstances proper to each case. The same remark was applicable to other hygienic measures. An important point in the clinical study of phthisis, with reference to effect produced by change of climate and hygienic measures, was to make a correct estimate of the influence of self-limitation in determining a favorable course of the disease.

Third. Dr. Flint offered some remarks with regard to symptoms and signs by means of which judgment must be formed with reference to the influence of self-limitation in individual cases of phthisis. Was it possible to judge whether there was an intrinsic tendency to a favorable course and termination? The symptoms which warranted hope, sometimes even an expectation of a favorable course and termination, related especially to the circulation, to body heat, to alimentation, and to nutrition. Persistent frequency of pulse, fever, anorexia, and progressive emaciation, opposed reliance on self-limitation. In proportion as phthisis was well tolerated, there was room for hoping that the disease would prove self-limited. If tolerance was limited, self-limitation was proportionately weak or wanting. There were abortive cases of phthisis as well as of other diseases, evidenced by phthisical lesions found at the apex of a lung post-mortem, without clinical history. Self-limitation might be exemplified, notwithstanding a large area of consolidation followed by cavities of considerable size. Confinement of the affection within circumscribed limits, that is, an absence of signs indicating progressive extension and general diffusion, were the most reliable points for a favorable prognosis. Heredity was not incompatible with an intrinsic tendency to recovery, and reference was made to an illustrative case in which both parents, three sisters, and three brothers died of phthisis.

In conclusion, Dr. Flint remarked that his histories afforded proof that profuse and repeatedly occurring hæmoptysis, chronic laryngitis, pleurisy with effusion, and perineal fistula, were not by any means in all cases unfavorable with regard to prognosis based upon self-limitation.

The paper being before the Academy for discussion,

DR. W. H. THOMSON remarked that he was not certain whether Dr. Flint used the word self-limitation in the sense of spontaneous recovery, or whether he gave to it some of the definitions which would more clearly define the term.

He thought it proper to say of typhus fever that it was a self-limited disease; also, that small-pox and all the specific communicable diseases were self-limited, because they depended upon the introduction into the system of some morbid agent, which had more or less the property of reproduction. So, also, the term might include processes of repair, as after a fracture of a bone. Was it to be understood that the disease known as phthisis was regarded by the author of the paper as self-limited in the sense of having a definite series of processes in succession, and that such succession of processes, occupying a more or less definite period of time, had a tendency to end in recovery like a case of fever or fracture of the femur? If so, he could hardly at the present time accept the conclusion. If, on the other hand, it was understood that there was a tendency to spontaneous recovery, and that cases after such recovery could be observed, he fully agreed with the author, and notably on the view of the question of change of climate, regarding change of climate as beneficial. Change of climate was unquestionably beneficial, but not positively remedial. In order to be a positively remedial agent, the atmosphere of the supposed beneficial locality must contain ingredients which acted curatively. In the exceptional cases in which the locality was abundantly supplied with pine trees, that was perhaps true, but he thought that in the great majority of instances the tendency to recovery, induced by change of climate, resided either in the fact

that certain irritants were absent, or the possibility upon the part of the patient to take advantage of certain elements, such as being in the open air, and therefore avoiding what elsewhere was irritant. The system recovered spontaneously under the beneficial processes aided by change of climate, and with such an understanding he could accept the doctrine that phthisis was a self-limited disease.

His own feeling was that a reliance upon self-limitation in phthisis in the sense of self-limitation of the reparative processes of a fracture or a specific fever, would be rather mistaken and somewhat mischievous. He thought that a study of the causes which kept up prolonged inflammation of the lung might lead to a more proper appreciation of the reasons why it was so commonly a fatal disease. For example, he doubted if the tendency to self-limitation was sufficiently strong to heal even a simple wound, in case such wound was rubbed from eighteen to twenty-four times each minute, and yet such was the irritation to which an ulcerated lung was constantly subjected, thereby preventing that one thing which made any abscess a source of great danger—namely, prevention of the formation of a limiting membrane.

Again, the pus, through decomposition, was turned into a cauterant substance, and wherever it went it left its mark along the trachea and larynx.

Those were some of the reasons why the disease was not self-limited in the proper sense of the term.

DR. FLINT remarked that he did take the position that in certain cases of pneumonic phthisis there was a tendency to spontaneous recovery; that recovery took place in certain cases irrespective of any appreciable cause; that it was self-limited in the sense that typhus fever was self-limited, differing from it in certain respects, such as that in the latter the fever ran a certain course with regard to time, etc. He did assume that in both, in the pneumonic phthisis as well as in the fever, facts went to show that in a certain proportion of cases recovery was due entirely to self-limitation.

He did not wish it to be inferred from that view that we were to rely upon self-limitation. He did not take that ground, for the fact of self-limitation was consistent with the efficacy of medicinal and hygienic means. His object in bringing out the paper was to show that we had a factor the influence of which had not heretofore been recognized, and that we should ascertain how much allowance must be made for it when studying the effect of medicinal and hygienic measures.

DR. J. R. LEAMING remarked that if it was true the tendency of nature was to limit disease, according to the old doctrine *vis medicatrix naturæ*, the office of the physician should be to assist nature; but if he should go along with her, carrying a bag of pills, he might assist in not limiting the disease. According to Dr. Flint we must look to the mixed form of phthisis, that in which there was inflammatory action resulting in tuberculosis, for evidence of self-limitation. In that case Dr. Leaming thought it to be the duty of the physician to assist nature in limiting the disease. As he thought, the beginning of many cases of phthisis was in pleurisy, especially in subjects possessing tubercular tendency; and if that was true, the removal of the exciting cause—the breaking up of the pleuritic adhesions—was giving nature the best possible chance to effect a recovery. The best possible method of effecting that was by keeping the lungs full and free. If expansion of the chest was kept up, and the lungs kept free, the conditions of irritation were removed, and a tendency to tuberculous deposit

thereby relieved. Tuberculous conditions generally resulted from local irritations giving rise to hyperæmia. He had no doubt there were cases of spontaneous recovery from phthisis, but the factors causing that recovery were not so obvious. Changes in the seasons were sometimes attended by favorable changes in the progress of a case of phthisis, and a phthisis beginning in the winter might be entirely relieved by the coming of spring and summer weather. Nutrition also had very much to do with permanent improvement in phthisis. Sometimes nutrition became improved by accident not known, or change of diet not suggested by the physician. If the meaning of the appellation self-limitation was not such as obtained in typhus fever or in the exanthematous diseases, or those diseases usually called self-limited, he was hardly able to understand its application.

DR. J. C. PETERS thought that some of the later views entertained regarding pulmonary consumption might throw light upon the subject under discussion. He was early taught that consumption began in the apices of the lungs; that for the time being the phthisical affection might cease until a fresh crop of tubercles was added lower down in the pulmonary tissue; that a succession of tuberculous deposits occurred, until large portions of one or both lungs became involved. If that doctrine was true, it was easy to understand how a cessation of the disease might occur. But lately he had studied an article in which the author took the position that the largest number of cases of phthisis recovered temporarily at least, and the view was based somewhat upon the doctrine stated above. It was known that after the first deposits of tubercle took place, inflammatory processes were usually established about them—in many cases they were not, and then the tubercles were frequently absorbed—and then it depended upon the condition of the patient's general health or the influence of some special cause, whether another tuberculous deposit took place. All physicians saw cases of recovery from consumption, and yet there were many others which we did not know how to control.

DR. THOMSON regarded the question as an important one, and thought it should be discussed in a way which might perhaps sound rather singular for him to suggest—namely, why was phthisis not self-limited? If it was self-limited and had a tendency to recovery, then there must be many cases in which that element of self-limitation was interfered with, and such limitation was prevented. If it was a self-limited disease it was very important to fully agree with Dr. Flint, in order that we might not be misled and attribute recovery to other causes. Exactly what his views were upon the subject he was not at present able to say; for the subject was a large and important one, and demanded careful study. He had always understood self-limitation in disease as a term restricted to those which had a definite course, and running that definite course through a definite series of developments, and finally, after that definite course had terminated, ending in recovery. To include phthisis in that category because of certain cases which got well, cases which constituted a very small minority, was a view he was not prepared to accept. He was not prepared to admit as proven, that phthisis came under what he had understood by the term self-limitation. Nevertheless, if it was true that phthisis had a tendency of its own to recovery, or the reason why patients suffering from it did not get well was because foreign influences, foreign to its own tendency, interfered with it, it was an exceedingly important question for discussion.

DR. FLINT, in explanation, remarked that he inferred from Dr. Thomson's remarks that he (Dr. F.) took the ground that phthisis, as a rule, had a tendency to recovery,—a position which he had not taken. The position which he took was, that there were certain cases which exemplified a tendency to recovery. The term self-limitation had been used somewhat loosely, but he had defined it as representing an intrinsic tendency to recovery, and in the light of that view he had studied the subject. Undoubtedly an intrinsic tendency to a fatal result existed in certain cases, whereas in other cases there was an equally undoubted intrinsic tendency to recovery. He did not wish to have the drift of the paper construed into an antagonism to means to be used for effecting a cure, but it was desirable to recognize the existence of the factor self-limitation, in order to determine, if possible, how far it was clinically operative.

The Academy then adopted the following amendment to its Constitution:

COMPOUNDING OF ANNUAL DUES.

"Any Fellow in regular standing who has attained the age of thirty years, and who has paid *five* annual dues, may compound for all future annual dues by the payment of \$150; one who has attained the age of thirty-five years, by the payment of \$145; one who has attained the age of forty years, by the payment of \$135; of forty-five years, \$125; of fifty years, \$115; of fifty-five years, \$105; of sixty years, \$95; of sixty-five years, \$80; of seventy years, \$65."

The Academy then adjourned, to meet at the call of the President.

Correspondence.

PERINEAL ARTIFICIAL ANUS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I read with much interest the recent report in the RECORD, of the highly interesting and pre-eminently fit proceedings of the Medical Society of Kentucky, in relation to the late heroic Dr. McDowell, of Danville, Ky., as well as the suitable remarks in a subsequent number of the RECORD in relation to the late Dr. Miller, of Louisville, Ky. Permit me now, through the same widely circulated medium, to call the attention of the medical profession to the just claims to their lasting remembrance and gratitude, of another long forgotten, but nevertheless worthy Kentucky pioneer surgeon. I allude to the late Dr. John P. Campbell, of Flemingsburg, Ky., who, on the 24th of November, 1800, performed the operation for *Perineal Artificial Anus*, in the case of a female infant three days old, having a congenital imperforation of the anus and rectum (*Atrësia Ani et Intestini Recti*), being the first operation of the kind ever performed in the United States for this formidable species of congenital malformation. The operation, as will be shown, proved a complete success.

It will be observed that in this particular species of congenital imperfection no anus exists, and there is, generally, not even the trace of an anus to be seen *in situ naturalis*, the perineal raphe being extended from the scrotum to the point of the coccyx without any interruption; and, should a considerable portion of the rectum be deficient, then, indeed, the case becomes most serious and embarrassing to the surgeon, as there is no external sign by which he can ascertain positively

where the end of the rectum can be found, or, indeed, whether the organ even exists at all or not. And to add still further to the difficulty and the perplexity, the rectum, besides being abnormal, sometimes occupies an abnormal position.

It was just in such cases as we are here considering that the celebrated French surgeons, MM. Amussat, Roux de Brignoles, and Goyrand, in their various publications on this subject during the years 1834 and 1835, declared that previous to that time such cases were never successfully treated, if treated at all, but were suffered to perish, because, as they imagined, their predecessors had not sufficient skill and courage to make free incisions in the perineum, in order to search for and to find the blind end of the rectum when it laid deep. They claimed great merit to themselves for introducing, as something entirely new in such cases, free incisions with a scalpel, guided by the finger, instead of the old method of punctures with the lancet or the trocar. These distinguished surgeons were, however, anticipated by Mr. Benjamin Bell, of Edinburgh, who, half a century before, described most graphically this very operation in such cases of free incisions with the scalpel, guided by the finger, and who reports two interesting cases upon whom he himself successfully operated. (*A System of Surgery*, vol. ii., p. 277. Edinburgh, 1787.) They were also anticipated by Dr. Campbell, of our own country, in 1800. Such a grave case, in the subject of an unfortunate child, was suddenly thrown upon the charge of Dr. Campbell, in the then infant state of surgery in our country, and in the wild woods, as it were, of the infant State of Kentucky. How the doctor executed the difficult and delicate operation will be given in his own language in the following letter to Dr. Samuel Brown, of Lexington, Ky., dated at Flemingsburg, Ky., March 9, 1801, being upward of three months after the operation. This letter was subsequently published in the "Medical Repository" of New York, the oldest and most prominent medical journal then in the United States:

"November 23, 1800, I was called to visit the child of Mr. Hutson, in the vicinity of this place, on the second day after the birth. The case was an imperforate anus. As an operation was inevitable, the next day was determined upon for that purpose. On the third day, when I went to operate, the child was very fretful and uneasy, the abdomen was much distended and discolored, and, from the information of the nurse, the fæces had been frequently vomited up through the day. I began the operation by making a longitudinal incision on the place where the anus should have been, which was slightly marked by nature. This incision I extended in the direction of the os sacrum with a lancet, until that instrument could be no longer serviceable, and no fæces following it when withdrawn, I introduced the scalpel and carried it up in the same direction until I had the pleasing sensation of having reached a cavity. The instrument was withdrawn and the meconium flowed plentifully. The child was placed in a warm bath up to the middle for a few minutes, and after this a tallow bougie being introduced to keep the orifice open, the little sufferer dropped into a pleasant sleep. The bougie and warm bath were continued but a few days, with the occasional use of some magnesia alba and rhubarb, till the child recovered, and every expectation to be derived from the operation was fully answered. At this time the child does well, and the mother assures me that she observes nothing in its present condition different from that of others which she has already nursed. My only fear was that the

sphincter muscle might be destroyed, but I am now convinced no inconvenience will ever result from that quarter. It was a female child, and the length of the canula, which I ascertained by measuring the instrument, appeared to be about three inches."—*The Medical Repository*, vol. v., p. 45. New York, 1802.

In conclusion, I would remark that the late Dr. Campbell richly deserves honorable mention in the American history of surgery, for his genius, his courage, and his skill.

I am, very respectfully yours,

W. BODENHAMER.

249 MADISON AVENUE, NEW YORK, June 19, 1879.

CHRYSOPHANIC ACID—ITS USE IN THE TREATMENT OF SKIN DISEASES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The following is a resumé of a series of articles published in the "Wiener Medizinische Presse," from April to October, 1878, by Prof. Neumann, upon the use of chrysophanic acid in skin diseases. Goa-powder is the product of a tree growing in the tropics of the Old and New World. It is the chief source (containing 84 per cent.) of chrysophanic acid. The action of this acid upon the skin is that of an irritant and a dye. It colors the linen and hair. The inflammation of the skin which it causes is often quite intense, accompanied by œdema, acne, and occasionally by chills. All these unpleasant symptoms disappear in about ten days. Prof. N. reports 26 cases of psoriasis: the age of the oldest patient 77 years, the youngest 16 months; longest duration of disease, 40 years, shortest six weeks; longest period of treatment, 46 days, shortest, three, which he has treated by the use of this remedy. In two of these the disease reappeared. He also reports 12 cases of chloasma uterinum successfully treated. He has also found it curative in pityriasis versicolor, herpes tonsurans, lupus maculosus and erythematous, syphilis cutanea, maculosa and papulosa, vegetans, psoriasis syphilitica, palmaris and plantaris. Its use is contra-indicated in eczema (excepting eczema marginatum) and sycosis. He does not recommend its use in solution, but in the following ointment:

B. Ung. simpl.....	40.00.
Liquefact. admisce exactissime,	
Acid. chrysophan.....	10.00
Adde Ol. bergamont.....	gtt. decem.

In psoriasis the treatment should begin with a warm bath, when the scales should be removed by means of a brush and *sapo viridia*. Baths are not advisable afterward, because in this way the ointment is brought in contact with the healthy skin. When extensively diffused upon the face and scalp, care must be used on account of the violent inflammation excited. The same remark applies to genitalia. Better results are sometimes seen by combining it with the tar treatment. In parasitic skin disorders an ointment in the proportion of 1: 8 does best. In chloasma uterinum, lupus vulgaris, maculosus and tuberculosus, apply twice a day; spread on linen held in place by adhesive strips. Thymol should be added to the ointment for lupus erythematodes. It requires long treatment. While it does not prevent the reappearance of psoriasis, it removes it so speedily that in his opinion it may be regarded as one of the most important remedies in skin diseases introduced to the profession in the last ten years.

M. STANTON, M.D.

SYRACUSE, June 14, 1879.

QUACKS AND REGULARS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The RECORD of May 10th reports Prof. Edmund Andrews's paper on the treatment of hemorrhoids by injection. The doctor speaks of having corresponded "with a large number of itinerant doctors—many of them the veriest quacks"—on this subject, and has obtained statistics of numerous cases.

The paper describes the treatment—which I will not recapitulate—to have been very successful in the vast majority of cases, and endeavors to prove that we are indebted to quacks for valuable scientific information.

I desire merely to ask if it is customary for "regular" practitioners to compile their statistics of cases from the records of quacks?

Yours truly,

SOLON B. STONE, U. S. Army.

FORT BOWER, A. T., June 9, 1879.

Of course we do, Mr. Editor, whenever the quacks present any truths worth studying. We know that some of the brightest discoveries in medicine were made by empirics, and it is our glory that we seize on them and appropriate them to the benefit of mankind.

Here was a body of quacks possessing a new treatment for hemorrhoids. They acquired an enormous reputation, and made their plan sweep the country with all the power of a great popular movement. They made tens of thousands of experiments with such éclat and success, that in whole regions they almost monopolized the treatment of piles. I saw that this immense mass of experiment was too valuable to be lost, and determined to collect the facts, sift the results, and put the whole on record for the study of the profession. Truth is immaculate, no matter whence obtained.

EDMUND ANDREWS, M.D.

NO. 6 SIXTEENTH STREET, CHICAGO.

PUERPERAL HEMORRHAGE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I was called on the 1st day of April last to see Mrs. P., a delicate lady of forty-three years. I found her entirely prostrated from ante-partum hemorrhage. She is a multipara, and was then in her seventh month of pregnancy. By vaginal examination I found the os slightly dilated, but rigid. I ordered 30 gtt. of tinct opii and 10 gtt. acid. sulph. arom. to be given every three hours. On the evening of April 2d the hemorrhage had ceased; her pulse was good and she seemed entirely comfortable. She improved until the morning of the 9th; hemorrhage again came on. My friend Dr. Wallace was called. I was again sent for on the evening of the 9th. We decided the only hope for the mother's life was the delivery of the fœtus. Upon examination it was found to be a case of placenta previa; the placenta being attached to neck of the uterus. The hemorrhage was profuse. The vagina was plugged with lint, and fl. ext. ergot (Squibb's), 15 gtt., was ordered every half-hour. Vomiting soon came on, and it was with difficulty she retained anything on her stomach. At 5 o'clock P.M., the 9th, the hemorrhage still continued; she had slight labor-pains. We thought best to rupture the membranes; the lint was removed from the vagina, a gum catheter introduced, and the mem-

branes ruptured. The hemorrhage was now frightful. She sank; was almost pulseless; her extremities were cold. We used whiskey and tinct. opii freely; there was but little improvement until about 11½ o'clock P.M.

I succeeded in pushing the placenta back into the uterus; the head of the fœtus presented, and the hemorrhage was entirely arrested. At 12½ A.M., the 10th, she was delivered of a dead child. The placenta was removed immediately, and the hemorrhage controlled with cold water and tannic acid introduced into the uterus by syringe. At this time, April 24th, she is doing well; no chills or fever followed.

In this case did the tinct. opii and acid sulph. aro. control the hemorrhage?

Did the excessive use of ergot cause the child's death?

I believe the tinct. of opii the very best stimulant in such cases.

J. ALEXANDER LA RUE, M.D.

HILLSBORO, POCAHONTAS CO., W. VA.

COMPARATIVE SIZE OF GRADUATING CLASSES IN MEDICINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—By the politeness of those in authority, I this morning received the annual announcement of the Medical Department of the University of the City of New York, for the session of 1879-80. By this showing the future outlook of this old and time-honored institution is certainly a brilliant one, and its friends have great cause for congratulation at its prosperous condition.

The announcement contains one slight error which with your permission I will correct.

In instituting a comparison between the number of its graduates of class '79 with that of other institutions (of a similar kind), it is claimed to be the largest class ever graduated by any medical college in the United States.

I have now lying before me the catalogues of the graduating classes of Jefferson Medical College for the years of 1855 and 1856 respectively.

The former class numbered 257 and the latter 215, —while that of the University numbered 204.

This is of no special importance to any one, and I write this only that the truth of history may be vindicated while the error is still fresh.

Very respectfully,

J. W. HAMILTON, M.D.

437 CLASON AVE., BROOKLYN, N. Y.

New Instruments.

COMBINED TABLE AND LOUNGE.

By JAMES L. LITTLE, M.D.,

OF NEW YORK.

FIGURE 1 represents the lounge when closed. It is made without a back, so that the surgeon can stand on either side to examine a patient. The upholstered part is made in a separate piece, and connected with the frame by four upright supports working on pivots at each end to allow of raising and lowering by a leather tag or loop. It is hard and firm, without springs, stuffed with hair, and covered with leather or enamelled cloth.

Fig. 2 shows the lounge converted into a table. The top is kept from falling by a flat iron hook.

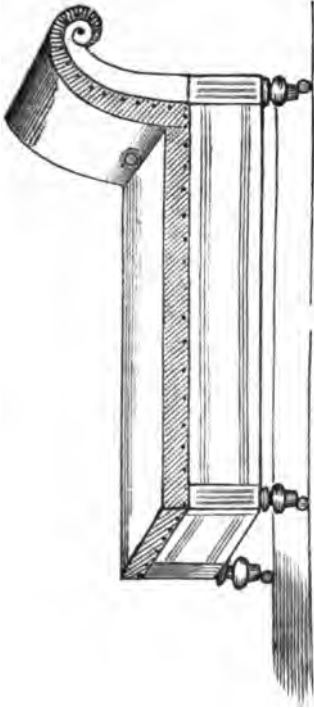


FIG. 1.

The weight is so nicely adjusted that a person can sit on the extreme end without danger of its tilting. In

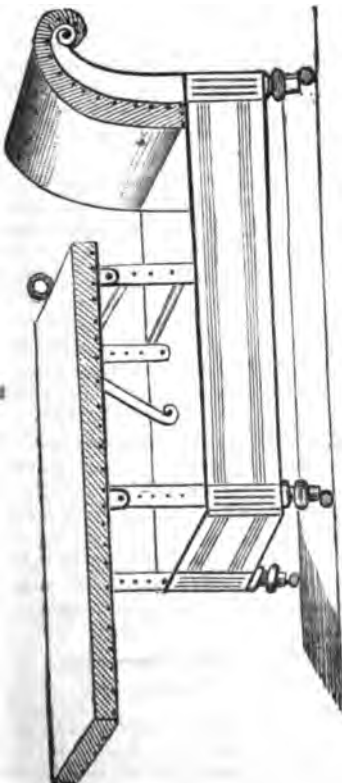


FIG. 2.

this position it can be used for gynecological purposes. Two sliding wooden foot-rests should be illustrated in the end of the movable frame, which may be drawn out if needed, and a drawer may be placed between them. There is also space enough in the lower frame for a pillow, sheets, towels, etc.

This table and lounge is made for the profession by F. Hayack & Co., 615, 617, 619 Tenth av., New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 6 to July 12, 1879.

McKEE, J. C., Major and Surgeon, Medical Director, Dept. of Arizona. His leave of absence granted him in S. O. 64, C. S., from these headquarters, extended fifteen days. S. O. 74, Dept. of Arizona, June 25, 1879.

CLEARY, P. J. A., Capt. and Asst. Surgeon. Granted leave of absence for five months. S. O. 157, A. G. O., July 7, 1879.

MUNN, C. E., Capt. and Asst. Surgeon. Granted leave of absence for four months. S. O. 159, A. G. O., July 9, 1879.

PAULDING, H. O., 1st Lieut. and Asst. Surgeon, now awaiting orders at Washington, D. C. Assigned to temporary duty at Fort McHenry, Md., relieving Asst. Surgeon W. B. Brewster. S. O. 160, A. G. O., July 10, 1879.

BREWSTER, W. B., 1st Lieut. and Asst. Surgeon. When relieved to report by letter to the Surgeon-General. S. O. 160, C. S., A. G. O.

Doctors John J. Kane, J. M. Banister, Wm. B. Brewster, Aaron H. Appel, Chas. Richard, and W. F. Carter, having been found qualified by the Army Medical Board, in session in New York City, have been appointed Assistant Surgeons, with the rank of 1st Lieutenant, to date from June 3, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 12, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 5, 1879.	0	4	59	4	32	15	5	0
July 12, 1879.	0	4	63	5	78	22	2	0

THE AMERICAN ACADEMY OF MEDICINE.—The annual meeting of the American Academy of Medicine will be held in the city of New York, commencing September 16th.

DR. ROBERTS BARTHOLOW.—The degree of LL.D. was conferred upon Dr. Roberts Bartholow by Mt. St. Mary's College, Emmettsburg, Maryland, at the annual commencement, held June 25th.

QUALIFICATIONS AND REQUIREMENTS FOR ENTERING THE MEDICAL CORPS OF THE U. S. ARMY.—We

publish the following for the information of persons desirous of entering the Medical Corps of the U. S. Army.

[EXTRACT FROM LAWS OF THE UNITED STATES.]

ACT OF CONGRESS, Approved JUNE 30, 1834.

"SEC. 1. *Be it enacted, &c.*, That from and after the passage of this Act, no person shall receive the appointment of Assistant Surgeon in the Army of the United States, unless he shall have been examined and approved by an Army Medical Board, to consist of not less than three Surgeons or Assistant Surgeons, who shall be designated for that purpose by the Secretary of War, and no person shall receive the appointment of Surgeon in the Army of the United States unless he shall have served at least five years as an Assistant Surgeon, and unless, also, he shall have been examined by an Army Medical Board constituted as aforesaid."

ACT OF CONGRESS, Approved JUNE 23, 1874, and JUNE 26, 1876.

"SEC. 4. That the Medical Department of the Army shall hereafter consist of one Surgeon-General. . . . One Assistant Surgeon-General. . . . One Chief Medical Purveyor, four Surgeons, with the rank, pay, and emoluments of Colonels, two Assistant Medical Purveyors. . . . Eight Surgeons, with the rank, pay, and emoluments of Lieutenant Colonels, Fifty Surgeons, with the rank, pay, and emoluments of Majors. One hundred and twenty-five Assistant Surgeons, with the rank, pay, and emoluments of Lieutenants of Cavalry for the first five years' service, and with the rank, pay, and emoluments of Captains of Cavalry after five years' service."

All candidates for appointment in the Medical Corps must apply to the Hon. Secretary of War for an invitation to appear before the Medical Examining Board. The application must be in the handwriting of the candidate, stating age and birthplace, and be accompanied by testimonials from Professors of the college in which he graduated, or from other Physicians in good repute. Candidates must be between 21 and 28 years of age (without any exceptions), and graduates of a regular medical college, evidence of which must be submitted to the Board before examination.

The morals, habits, physical and mental qualifications and general aptitude for the service of each candidate will be subjects for careful examination by the Board, and a favorable report will not be made in any case in which there is a reasonable doubt.

The following will be the general plan of the examination:

I. A short essay, either autobiographical or upon some professional subject—to be indicated by the Board.

II. Physical examination. This will be rigid, and each candidate will, in addition, be required to certify "*That he labors under no mental or physical infirmity, nor disability of any kind, which can in any way interfere with the most efficient discharge of his duties in any climate.*"

III. Oral examinations on subjects of preliminary education, general literature, and general science. The candidate must satisfy the board in this examination that he possesses a thorough knowledge of the branches taught in the primary schools, and a failure to show this will end his examination.

Oral examination on scientific subjects will include Chemistry and Natural Philosophy; and that on literary subjects will include English Literature, History of the United States, and General History—Ancient and Modern. Candidates possessing a knowl-

edge of the higher mathematics, the ancient and modern languages, will be examined therein, and due credit given for a proficiency in any or all of these subjects.

IV. Written examination on anatomy, physiology, surgery, practice of medicine and general pathology, obstetrics, and diseases of women and children. Oral examination on these subjects, and also on medical jurisprudence, materia medica, therapeutics, pharmacy, toxicology, and hygiene. Few candidates pay the attention to hygiene which it deserves; it is made an important subject in this examination.

V. Clinical examination, medical and surgical, at a hospital.

VI. Performance of surgical operations on the cadaver.

The Board will deviate from this general plan whenever necessary, in such manner as they deem best to secure the interests of the service.

The Board will report the merits of the candidates on the several branches of the examination, and their relative merit in the whole, according to which the approved candidates will receive appointments to existing vacancies, or to vacancies which may occur within two years thereafter.

An applicant failing one examination, may be allowed a second after one year, but not a third.

No allowance will be made for the expenses of persons undergoing examination, as this is an indispensable prerequisite to appointment, but those who are approved and receive appointments will be entitled to transportation on obeying their first order.

(Signed) GEO. W. McCRAE,

Secretary of War.

WAR DEPARTMENT, November 30, 1878.

BOARD OF EXAMINERS OF THE U. S. MARINE HOSPITAL SERVICE.—The Surgeon-General, Jno. B. Hamilton, of the U. S. Marine Hospital Service, has appointed a Board of Examiners to hold a competitive examination of candidates for the Medical Corps of that service, to commence in Washington, D. C., on the 15th inst. Details for the Board: Surgeon C. N. Ellinwood, President; Surgeon T. W. Miller; Surgeon W. H. Long, Recorder.

TREATMENT OF DANDRUFF.—In answer to inquiries concerning this in the *Lancet*, the words of Abernethy are quoted, "cleanse, dry, and anoint." Cleanse the head every other day with a wash of yolk of egg, and use an astringent lotion of borate of soda and glycerine, $\mathfrak{ss}$ i, with an ointment of creosote every night.

DR. WILLIAM DARLING.—The degree of LL.D. was conferred on Dr. William Darling, of the University of New York, by the University of Vermont at its Annual Commencement, held June 26th.

LEPROSY.—There are thirteen cases of this disease in Louisiana, according to Dr. L. F. Salomon. They are, with one exception, of the tubercular variety. No mode of treatment seems to have been at all efficacious with them.

GRADUATES FROM THE MEDICAL COLLEGES IN THE UNITED STATES IN 1878.—During the year 1878 there were 2,708 medical students graduated from the fifty-nine colleges of the United States.

BOOKS RECEIVED.

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Vol. viii. Edited by J. HENRY O. SIMES, M.D. Philadelphia: J. B. Lippincott & Co. 1879.

Original Lectures.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

A LECTURE DELIVERED AT THE MANHATTAN EYE AND EAR HOSPITAL, IN THE CITY OF NEW YORK.

By O. D. POMEROY, M.D.

(Reported for THE MEDICAL RECORD.)

PART I.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR—ETIOLOGY—COLD—EXANTHEMATA AND OTHER FEVERS—EXCESSIVE INFLATION OF THE TYMPANUM—ROUGH HANDLING OF THE EAR—IMPACTED CERUMEN—INJECTIONS INTO THE TYMPANUM—NASAL DOUCHES—ACUTE PHARYNGITIS—PNEUMONIA—MODE OF INVASION—OTORRHOEA A MISNOMER—APPEARANCES UPON INSPECTION—CHARACTER AND QUANTITY OF THE DISCHARGE—APPEARANCE OF THE DRUM-MEMBRANE—PECULIAR PULSATION.

GENTLEMEN:—At our last meeting I spoke with reference to acute inflammation of the tympanum. There are a few points yet to be disposed of, but as I wish this evening to develop as thoroughly as possible the subject of chronic purulent inflammation of the tympanum, I will at once pass to the consideration of the causes of this affection.

ETIOLOGY.

In general terms, it may be stated that the causes of chronic suppurative inflammation of the tympanum are almost identical with those of acute inflammation of the tympanum. I will *first* speak of the effect produced by *cold, on the ear*, either directly or indirectly.

a. After taking cold there are a great variety of symptoms. The patient may have rheumatism, or fever, or pneumonia, or sore throat, etc. A sore throat is a very common result of taking cold. Sore throat will not produce otitis necessarily. Anyone with inflammation of the upper pharyngeal space is *liable* to an attack of otitis, the inflammation traveling up the Eustachian tube, and involving the tympanum.

b. A draught of air upon the head or upon the ear. Under these circumstances the inflammation involves the tympanum by means of the meatus auditorius externus. Direct exposure of the ear to draughts of cold air, such as arise from sitting by an open window, or more especially in a railway car near an open window, listening at a key-hole, etc. It is well known that conjunctivitis is sometimes dependent upon a draught of cold air coming in immediate contact with the eye from the patient's looking through a key-hole. In the same manner inflammation of the ear may be produced by exposure to a draught of cold air while listening at a key-hole.

c. Cold water in the ear from bathing. This may operate as a cause in producing inflammation of the ear in a twofold manner. There is *first* the effect produced by the application of cold to the ear, and *second* the violence inflicted. For example, when a person dives, the concussion of the water upon the drum-membrane may inflict sufficient violence to cause its rupture. Or in surf bathing a breaker may strike the ear violently. In such a case we have the double influence of cold and violence in the produc-

tion of inflammation. Water may also pass up the Eustachian tubes from being taken into the mouth in considerable quantity, which the patient often swallows.

Second.—The exanthemata and other fevers. The worst cases of otitis media, produced by the exanthematous fevers, occur in connection with *scarlet fever*, and in nearly every instance the ear trouble depends upon the sore throat which accompanies the disease. This form of otitis is frequently of a very grave nature. It is very likely to destroy a considerable portion of the drum-membrane, the ossicles may be removed by ulceration, and in other ways extensive damage may be done to the ear. Occasionally in scarlet fever the inflammation travels from the skin down the external meatus, and involves the ear from that direction; but these cases are quite infrequent.

In *measles*, as you all know, there is a disposition to the development of catarrhal inflammation of mucous membranes. Catarrhal conjunctivitis and nasopharyngeal catarrh, often dependent on this disease, and the pharyngeal catarrh may travel up the Eustachian tube and produce otitis media in the same manner as in the sore throat associated with scarlet fever. The eruption of measles may also extend down the external auditory canal, and involve the tympanum externally.

The same observations may be made with reference to *typhus*, *typhoid*, and other fevers, but as a rule the inflammation which is to produce otitis media is first developed in the throat. In *small-pox* the tympanum is somewhat more likely to become involved by way of the external auditory canal than in the exanthematous fevers.

Third.—Violence inflicted upon the meatus or upon the tympanic cavity.

a. Excessive inflation of the tympanum, which may even rupture the drum membrane. This is a somewhat infrequent cause. You have, however, frequently had opportunities to see how the drum membrane is reddened by inflation of the tympanic cavity. You have seen, as an occasional result of inflation, pain in the ear, produced simply by the violence with which the air has been forced into the tympanum. Since Politzer's method came into use, inflation of the tympanum has been somewhat overdone. I feel sure, if it does not excite inflammation it is likely to stretch the drum membrane in such a manner as to cause it to lose its normal elasticity. Occasionally we see a drum membrane, in an ear that has been inflated excessively, which flaps to and fro like a loosely-fastened sail. Rupture of the membrane, produced by excessive inflation, is not a serious accident, because the tendency existing in the membrane to heal is so strong that it is scarcely possible to prevent it from closing again directly.

b. Any rough handling of the ear, such as may result from improper efforts at removal of cerumen or foreign bodies. I have previously said considerably to you regarding the damage liable to be done by resorting to other means than the syringe in removing cerumen and foreign bodies from the ear.

Some of you have observed that when a given drum membrane is first examined, it may not be reddened, but after three or four examinations have been made, it has been discovered that a good degree of hyperæmia has been developed. This has been brought about directly by violence inflicted in the management of the speculum, and otherwise handling the ear roughly. If you ever have had your own ears examined, you doubtless recollect how sensitive an organ the ear is, and how easily irritation sufficient to

throw it into a state of pain and inflammation may be produced.

c. The presence of *impacted cerumen*. In a report which I made several years since of a number of cases of impacted cerumen, I directed attention to the fact that inflammation of the middle ear was caused not very infrequently by the presence of a plug of cerumen in the external auditory canal. The plug acts as a foreign body. The manner in which the violence is inflicted may be as follows: whenever the jaw moves the condyle presses against the meatus, and for the time being narrows its calibre. If, therefore, the canal is filled, or perhaps only partly filled, with hard cerumen, any pressure will inflict violence upon the wall of the external auditory canal, on account of the presence of the hardened cerumen.

4. Injections into the Tympanum.

a. Accidental injections from the use of the nasal douche afford us an example under this head; whether the water is hot or cold, properly salted or not, and I was almost ready to say, whether properly injected or not, we are liable to have trouble. Certain it is that many of us here have caused acute inflammation of the tympanum by the use of the *nasal douche*, and we have probably used it in a reasonably careful manner. It is not always possible to prevent the patient from swallowing while the nasal douche is being used, and if he does swallow, he is liable to have water thrown into the tympanum. Water introduced in that manner does not necessarily excite inflammation. Nothing can be more bland than quite warm water, containing not more than a drachm of salt to the pint, yet occasionally it will produce acute inflammation of the middle ear of considerable violence. Not long since I had a patient from the country, who said that the physicians in his village were using the nasal douche extensively in the treatment of catarrh, and it was pretty generally known among the people that those upon whom it was used were frequently deafener than prior to the commencement of treatment. I use it much less frequently than formerly, and I suspect its general use is being abandoned.

b. Any injection used to relieve a catarrhal condition of the Eustachian tube and middle ear, may, when not desired, pass into the tympanum. This has happened with the Eustachian catheter, and with my Faucial catheter, and it is sometimes quite unavoidable. It is a very good rule to use such a small quantity of the solution, whatever it may be, that it is impossible to reach the tympanum in injecting it. I think I have the same prejudice against injecting the tympanic cavity that has been entertained with regard to injecting the cavity of the uterus. If the drum membrane is perforated, there may be no objection to injecting the tympanum, nay, it may be strongly recommended.

Fourth.—Any inflammation of the pharynx whatsoever, is liable to travel up the Eustachian tubes, and thus give rise to inflammation of the middle ear.

Acute pharyngitis may be developed in a healthy person in consequence of exposure. It is especially liable to be developed in one who suffers from chronic naso-pharyngeal catarrh. As you are all aware, the tuberculous condition gives rise to sore-throat, and it is somewhat analogous to that condition which gives rise to chronic catarrh in general. In these cases the destruction of drum membrane is apt to be extensive.

Inflammation of the tympanum is sometimes de-

veloped in the course of a *pneumonia*. In this condition it depends upon the air being thrown violently into the cavity of the tympanum through the Eustachian tubes during the rapid respiration incident to the lung trouble.

MODE OF INVASION.

The mode of invasion of this affection is as follows: it begins where the acute inflammation ends. The tendency of acute inflammation of the tympanum is toward self-limitation and recovery. There is frequently a tendency to resolution. Thus, if there is a formation of muco-pus or pus in the tympanum, it does not necessarily follow that rupture of the drum membrane will occur. The membrane may be ruptured and heal again directly. If the rupture is small, or is of the form of a fissure, it is likely to heal at once. If it is large, and there is a considerable loss of tissue, it is not as likely to heal. The rapidity with which these ruptures heal, or whether they heal at all, is determined very largely by the condition of the patient. If he is in good general health, if there exists a strong tendency to tissue repair, he will recover from his acute attack completely; but if not, it will pass into the chronic suppurative form. In cases where the perforation is large, the entrance of atmospheric air from the meatus into the cavity of the tympanum has a tendency to perpetuate the disease. The function of the drum membrane is not too well understood, but one part, at least, is appreciated, namely, it protects the sensitive parts of the tympanic cavity from the influence of irritating agents which might enter through the external meatus. The delicate membrane lining the tympanum does not bear well the irritation incident to sudden changes in temperature of the atmosphere, and one of the functions of the drum membrane is to protect it from that source of irritation.

This affection is frequently called *otorrhoea*, and was spoken of by the older writers under that head. This is a misnomer, and should be abolished from the nomenclature of diseases of the ear. The *otorrhoea* is simply a symptom. There is always a discharge in this disease, although the patient will frequently deny its existence. There may be a discharge so small in quantity as not to be appreciated by the patient, hence you should not regard his statement, but should examine the ears carefully. The discharge may be very slight and so glued to the drum membrane that you may be in doubt whether you are looking at the drum-membrane or at the discharge covering it, as the latter may so nearly simulate the color of the membrane itself. If the discharge is large in quantity, you are not *sure* that it comes from the tympanic cavity, but in a large number of instances an excessive discharge comes in part, at least, from the cavity of the tympanum.

APPEARANCES UPON INSPECTION.

There is a profuse ropy mucous discharge. It may be purulent; it may be serous; it may be sanguinolent. Sometimes it will be flocculent, more especially if the patient has granulations or polypi, and probably depends upon the presence of epidermic scales and detached epithelium. The discharge is occasionally of a cheesy consistence, and then it is likely to become more or less agglutinated to the drum-membrane, and requires to be wiped away with absorbent cotton after having been previously syringed. I think you will have observed that but few men in the institution are capable of cleansing an ear as thoroughly and neatly as it should be done. For diagnostic purposes it is of the greatest possible importance

to cleanse the ear very carefully. I advise you to do this under sight aided by the forehead-mirror. Often if the discharge is not all removed, or a few epidermic scales are left, you will be prevented from making an exact examination of the part. When the ear has been properly prepared for examination you will find the membrane more or less reddened, always opaque, grayish in color, dermoid layer mostly or wholly removed by inflammation and maceration. If you will carefully remove the dermoid layer which has not been entirely detached, you will find beneath it a reddened surface which may be dependent, perhaps, partly upon the violence with which you have conducted your manipulations, but principally on the presence of a passive inflammation of the membrane. If the perforation is large, so that you can see the inner wall of the tympanum, it will almost always be found to be red, swollen, and puffy, and will bleed easily. The opposite condition may be present; it will then be pale, relaxed, swollen but little, and accompanied by a thin serous discharge. The latter are rather bad cases to manage. The rupture in the drum membrane may be single, or there may be several openings. The perforation may be located before or behind the handle of the malleus, perhaps most frequently below the centre of the drum-membrane. The membrane may be completely removed. Frequently we see the kidney-shaped perforation with the handle of the malleus extending into the hilus of this opening.

Another point to which I wish to direct your attention, is the sickle-shaped edge of the drum-membrane remaining. Supposing you are inspecting a reddened surface, and you are in doubt as to whether it is the drum-membrane or the inner wall of the tympanum; you will look for a perforation, and by and by you will find a whitish sickle-shaped body at the periphery of the field. That is what remains of the drum-membrane and will enable you to make the diagnosis of perforation with little or no trouble.

In some cases you will see a pulsation in the ear in the vicinity of the drum-membrane; this is well-nigh diagnostic of perforation, and in probably not more than one in fifty cases will you be wrong. If perforation is not present the drum-membrane is very thin. The symptom is explained in this manner: The vessels are very much swollen and the pulsation becomes visible by virtue of the excessively thin covering of membrane lying upon them.

It is worthy of remark that a small portion of the drum-membrane almost always remains, and that is the part above and about the short process of the malleus.

The ossicles are infrequently removed. If any are absent it is likely to be the malleus, although the manubrium alone may be lost by necrosis. The stapes is the last bone to be removed, and its absence is rarely observed. You may be able to demonstrate the presence of the stapes by means of a probe which touches an immovable bony elevation in the region of the oval window. Occasionally it can be seen as a rounded elevation, slightly above and behind the termination of the handle of the malleus; in other words exactly opposite the termination of the long shank of the incus. It is quite generally believed that destruction of the drum-membrane and loss of the ossicles produces profound deafness, but I would state here that the drum-membrane may be all swept away and the ossicles removed, certainly the malleus and the incus, without greatly impairing the hearing.

(To be continued.)

Original Communications.

REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM
IN CONJUNCTION WITH FREE SUPPORTING DIET,
AS MEANS OF DEFENDING THE SYSTEM AGAINST
THE DANGERS OF THE OPERATION—ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

PART II.

THIS brings us to the narration of cases of ovariectomy, and I give a series of six, taken without selection, as they presented themselves in my service at the Woman's Hospital within a period of eleven months. From these reports it will be seen that I gradually reached my plan of preparatory and after-treatment, and therefore it will be found carried out to the letter only in one or two of the last cases. The originality or novelty of this treatment, if there be any, will be found mainly in the early and continuous use of quinine and opium per rectum, in conjunction with free and liberal support of the system by oral or rectal alimentation, or both at the same time, as means of preventing or controlling high temperature after ovariectomy.

The results in these six cases are intended to show the value of the plan. All six of the operations were performed in the two small frame cottages situated on the hospital grounds, where the patients were nursed and cared for until all danger had passed—eight to ten days. One week from the completion of the operation being the special period of treatment, the notations of the pulse and temperature for this time were made upon an average once in three hours, but to make these reports as short as possible, only two in the twenty-four hours are here recorded—namely, at or about 6 A.M. and at or about 6 P.M. The quantities of medicines, nutriments, stimulants, etc., given at long, short, or irregular intervals are noted only for the twenty-four hours commencing and ending at 12 o'clock at night. Sulphuric ether was the anæsthetic employed.

CASE I.—Both Ovaries Involved—Right, Seat of large Dermoid Cyst—Never tapped—The Value of Dulness on Percussion over one Loïn, as Diagnostic of the Side of the Tumor, Confirmed—Double Ovariectomy with Antiseptic Precautions—Medium Incision—Extensive and Resisting Parietal and Omental Adhesions—Moderate Hemorrhage—Both Pedicles Ligatured—No Drainage-Tube used—Early Supporting Diet—Peritonitis Violent—Commenced Cold-Water Affusions upon Kibbe's Cot forty-eight Hours after Operation—Supplemented by Quinine twenty-four Hours later—Collapse Produced without Reduction of Temperature—The Former Suspended and the Latter Continued—Cinchonism at the End of ninety-six Hours followed by Permanent Reduction of both Pulse and Temperature—Protracted Recovery.

Sarah C., of Perth Amboy, N. J.; native of Ireland, aged thirty-five; married; one child; widow thirteen years; about medium stature; dark complexion, black hair, with the *facies ovariana* well marked; was admitted to the Woman's Hospital May 6, 1878. She

stated that the tumor from the first lay to the right side and was the size of a child's head before it began to occasion serious inconvenience; that nine months previously it began to grow rapidly, and that from this date on she gradually lost flesh. Girth below the umbilicus, 34½ inches. Tumor prominent to the right of the median line, though marked dullness found to the left of the latter in the hypogastric and iliac regions. Slight oedema over the abdomen, and protuberance of the umbilicus. But little mobility of the abdominal walls over the tumor. Dullness on percussion over the right loin pointing directly to the corresponding ovary as the seat of the tumor. Case examined by two of my colleagues, and both concurred with me in the belief that the tumor was ovarian.

Operation, May 13th.—At 2 o'clock, with a cloud of carbolic spray falling upon her abdomen, the necessary incision in the linea alba, below the umbilicus, was made and the peritoneal cavity reached. Owing to the extensive adhesions found, and the difficulty of manipulating the tumor, the incision afterward was extended about an inch above the umbilicus. The adhesions were then all torn or separated with the fingers and handle of the scalpel. Then, by successively tapping the several cysts within the tumor containing fluids of varied densities and colors, the whole mass was so reduced that it could be easily drawn out of the abdomen. It proved to be the right ovary as diagnosed, and the pedicle, after being tied with a carbolized ligature, was cut and dropped. Commencing cystic degeneration of the left ovary now being discovered, this was removed in like manner. There was no great loss of blood, but one or two small bleeding vessels in the omentum required ligatures. The greatest care was taken to wipe out and cleanse thoroughly the abdominal and pelvic cavities. The sponging was continued as long as there was any oozing. The wound by mistake was closed with ten plain silk sutures instead of carbolized ones, and then dressed according to the method usually employed by Mr. Lister. Tumor and contents weighed 18½ pounds; it was dermoid in character, and contained both hair and teeth. Duration of the operation, fifty-six minutes.

AFTER-TREATMENT.

Per orem: Milk, 3 ij. Per rectum: Liq. opii comp., 3 ss.

Evening: Pulse, 132; temp., 103½° F. General condition: Nausea and slight vomiting; neither pain nor tympanitis.

May 14th.—Morning: Pulse, 96; temp., 100½° F. Per orem: Beef-tea, 3 vi.; milk, 3 xiv.; milk porridge, 3 x.; whiskey, 3 ss.; mixture of citrates of potash and lithia every three or four hours. Per rectum: Liq. opii comp., 3 j. General condition: No pain except in the back; slept well most of the night, and a good deal during the forenoon; urine thick and of a yellowish color. Early in the afternoon symptoms of marked peritonitis began to show themselves.

Evening: Pulse, 120; temp., 103½° F.

May 15th.—Morning: Pulse, 100; temp., 102° F. Per orem: Beef-tea, 3 xvi.; milk porridge, 3 xviii.; milk, 3 ij.; whiskey, 3 iss.; mixture of potash and lithia as before stated. Per rectum: Liq. opii comp., 3 i. General condition: At 2 A.M., pulse 120; temp., 103½° F. Now commenced the use of cold-water affusions over the abdomen upon Kibbe's cot at 67° F., six given during the day; each time followed by chilliness and a depressed feeling; pulse small and feeble; tympanites and pain over the entire abdomen.

Evening: Pulse, 110; temp., 108° F.

May 16th.—Morning: Pulse, 116; temp., 101½° F. Per orem: Beef-tea, 3 xiv.; milk porridge, 3 xxi.; milk, 3 xxii.; whiskey, 3 vij.; mixture of potash and lithia as before. Per rectum: Liq. opii comp., 3 i.; sulph. quinine, grs. xxiv. General condition: At 12.45 P.M., when two douches had been given, the pulse and temperature showed an elevation of 196 and 104½° F. respectively; all the symptoms of violent peritonitis present. After a chill, now lost confidence in the cold affusions and concluded to supplement them with sulph. quinine per rectum, in 8-grain doses. From this time to 10 P.M. patient got eight douches, nearly one upon an average per hour. Now temp. 103½° F. Douching suspended for the time.

Evening: Pulse, 120; temp., 108½° F.

May 17th.—Morning: Pulse, 106; temp., 101½° F. Per orem: Beef-tea, 3 xxxvi.; chicken broth, 3 xviii.; milk, 3 vi.; milk porridge, 3 xx.; whiskey, 3 iij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 iiss. General condition: At 6.30 A.M., made an early visit, and found the patient in a state of collapse. A violent chill was upon her, and her extremities were of icy coldness. The blueness of the lips, the chattering of the teeth, and the almost imperceptible pulse at the wrist all pointed to speedy dissolution. This condition was brought about, as was soon discovered, by wet sheets, wet clothing, and neglect of the nurse, for several hours, to refill with hot water the tin cans around the chest and extremities. By prompt attention to the latter, and changing the sheets and clothing, together with free administration of stimulants, the danger was averted. Thus seeing the great danger attending the use of cold-water affusions, and their failure so far to control, or even moderate high temperature, I determined to abandon them entirely, and trust to quinine and opium per rectum, with free nourishment of the system. Up to this time the two medicines had been given separately, but now they were combined. At 1.30 P.M., about twenty-four hours after their commencement, and when only forty grains of the former and one drachm of the latter (liq. opii comp.) had been taken, thorough *cinchonism* manifested itself. Patient now hungry. Pulse and skin fair; urine better. Has not slept much during the day, and is afraid to be left alone.

Evening: Pulse, 118; temp., 100½° F.

May 18th.—Morning: Pulse, 104; temp., 101° F. Per orem: Beef-tea, 3 xvi.; chicken broth, 3 ij.; milk, 3 xxx.; milk porridge, 3 xvi. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., 3 iss. General condition: Has slept but little since morning. Talks to herself, and sings. Says she feels first-rate; urine clear; pulse good; tympanites and abdominal pain less.

Evening: Pulse, 100; temp., 100½° F.

May 19th.—Morning: Pulse, 90; temp., 100° F. Per orem: Beef-tea, 3 xxiv.; milk, 3 xvi.; milk porridge, 3 xxxii.; chewed and swallowed the juice of a piece of beefsteak. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., 3 i. General condition: Slept pretty much all night; has some nausea and a little dryness of the tongue; also a little pain. Perspires freely when asleep. Sutures removed, and supuration found in the tracks of nearly all of them. Patient changed from Kibbe's cot to her bed.

Evening: Pulse, 104; temp., 101° F.

May 20th.—Morning: Pulse, 97; temp., 100½° F. Per orem: Beef tea, 3 xvi.; milk, 3 xl.; milk porridge, 3 xvi. Per rectum: Sulph. quinine, grs. xij.; liq. opii comp., 3 iss. General condition: Tongue

still a little dry; less tympanites; frequent desire to urinate, though quality of urine good.

Evening: Pulse, 108; temp., 101° F.

The same general plan of treatment as set forth in the above diary of the week was continued, with such omissions and changes as regards medicines and food as circumstances from time to time demanded, until the seventeenth day of the operation. Now, the quinine and opium given up to this time by the rectum were stopped.

Up to the tenth day of the operation the temperature varied but little from 101° F. Then it fell below 100° F., and the pulse to about 80. But still there continued every evening to be a slight exacerbation of the little fever present, until June 4th, the twenty-second day, when both the pulse and temperature mounted to 100 respectively. This went on for four or five days, and then subsided gradually to the standard of health. This I attributed to the presence of inflammatory products in the peritoneal cavity. During the week of active treatment, nine and a half drachms of liq. opii comp. were taken, and from the time it was commenced, on the third day, eighty-eight grains of quinine; from first to last, twenty-one and a half drachms of the former, and one hundred and ninety grains of the latter were taken. Week's average of pulse, 106; of temp., 101½°. Convalescence finally complete, and the patient discharged cured.

CASE II.—Both Ovaries Involved—Main Tumor Myxofibromatous—Ascites—Never Tapped—Absence of Dullness on Percussion over One Loins—Double Ovariectomy with Antiseptic Precautions—Small Incision—Few, but very Resisting Adhesions—Hemorrhage Slight—Shock Considerable—Both Pedicles Ligatured—No Drainage-Tube Used, but a small Tent left in Lower Angle of the Wound—Early Supporting Diet by the Mouth and Rectum—Peritonitis Moderate—Quinine with Opium, Commenced per Rectum Thirty Hours after Operation—No Cinchonism—Primary Fever Slight—Secondary High—Pus Discharged through the Wound on the Ninth Day—Peritoneal Cavity Daily Washed out—Protracted Recovery.

Mary McC., of New York, aged 45, unmarried; short, and of heavy build; lymphatic temperament, with sallow or waxy complexion—was admitted to the Woman's Hospital, May 3d, 1878, presenting an abdominal tumor, with girth below the umbilicus of thirty-seven inches. She stated that a year before admission she first noticed a small tumor low down in the abdomen, and that ever since then she had had pain in the left hip, groin, and corresponding limb; that for six months previous to this time her menstrual flow had been irregular, and sometimes too free; but latterly it had been profuse at times, lasting two or three weeks, for which relief was sought in the St. Vincent Hospital.

Examination showed the tumor to be semi-solid in character, and surrounded by a considerable quantity of fluid in the peritoneal cavity. The precise nature of this floating tumor, for such it was, did not appear clear to my mind, nor were my colleagues, Drs. Emmet and Thomas, who kindly examined the case at my instance, any more decided in their opinions of it. We all agreed, however, upon the two essential points presented by the case: first, that the tumor was connected with the uterus, probably the left side, by a pedicle of no great thickness, and that an operation for its removal was called for. The uterus itself measured three inches, was a little ante-flexed, and drawn over to the left side. The marked

dullness on percussion over the left loin as contrasted with the right, pointed to the corresponding ovary as the seat of the tumor.

Operation, May 17th.—At two o'clock the operation was performed under the antiseptic spray. Through the small incision made in the peritoneal cavity about a gallon and a half of straw-colored fluid escaped, and thus was the oblong semi-elastic tumor brought into view, lying mainly to the left side, but reaching considerably to the right, above the umbilicus. It was found firmly adherent to the left abdominal wall, and it was only after considerable delay and a process of tearing or gnawing through the points of resistance with the fingers and handle of the scapel, that the mass was finally separated. Only one point was cut with the scissors. The tumor was then tapped with a Spencer Wells's trocar, but no fluid escaped. The instrument was then withdrawn, and one finger after another introduced into the opening, until the whole hand penetrated the mass and reduced it to a mere shell. Afterwards it was easily drawn through the opening, and found to be the right ovary instead of the left, as diagnosed. After tying, cutting, and dropping the pedicle in the usual way, commencing disease of the left ovary was found to exist; its pedicle was treated in like manner. This being done, the fine bleeding points in the omentum were tied and the peritoneal cavity cleansed in the most thorough manner. The patient now became so exhausted as to require cessation of the anæsthetic, and four hypodermics of whiskey (3 iv.) were given. On the establishment of reaction the abdominal wound was closed with eight to ten waxed carbolized sutures, made to include the peritoneum. A tent of carbolized gauze was left in the lower angle of the wound, and to the whole was then added the Lister dressing.

From the semi-solid or friable nature of the tumor, and the general appearance of its structure, I was inclined to regard it as the colloid variety of cancer; but under the microscope it proved to be of a myxofibromatous character, and therefore benign. The weight of the growth was four pounds. Time of the operation, sixty-two minutes.

AFTER-TREATMENT.

Per orem: Immediately after operation brandy-and-water given freely. Afterward brandy, 3 ij. Per rectum: Beef-tea, 3 ij. Two hypodermics of Magendie's sol. of morph., given through mistake, instead of liq. opii comp. General condition: Complains of pain in the abdomen, and has some nausea and vomiting. Reaction satisfactory.

Evening: Pulse, 108; temp., 99½° F.

May 18th.—Morning: Pulse, 98; temp., 100¼° F. **Per orem:** Milk, 3 iv.; milk porridge, 3 iij.; brandy, 3 iij. Per rectum: Sulph. quinine, grs. viij.; liq. opii comp. 3 ii½; beef-tea, 3 viij. General condition: Complains still of pains in the abdomen; has acid eructations; urine clear.

Evening: Pulse, 108; temp., 101½° F.

May 19th.—Morning: Pulse, 102; temp., 101½° F. **Per orem:** Chicken broth, 3 iv.; tinct. ginger in five-drop doses. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp. 3 iss.; beef-tea, 3 x. General condition: Does not vomit, but has frequent eructations, which disturb sleep; has some tympanites and borborygmus; passes flatus now and then.

Evening: Pulse, 100; temp., 100½° F.

May 20th.—Morning: Pulse, 88; temp., 101½° F. **Per orem:** Chicken broth, 3 x.; tinct. ginger. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 iiss.; beef-tea, 3 xvij. General condition: Passes

flatus freely, and has less eructation; sleeps well; menstruates a little.

Evening: Pulse, 82; temp., 100½° F.

May 21st.—Morning: Pulse, 80; temp., 99½° F. Per orem: Chicken broth, 3 xxxi.; tinct. ginger. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., 3 iss.; beef-tea, 3 xi. General condition: Still menstruates; feels very well in every particular. The gauze tent is removed from the lower angle of the wound. About one ounce of clear, thin, yellowish fluid followed it. The opening was drawn together with an adhesive strip.

Evening: Pulse, 80; temp., 100¼° F.

May 22d.—Morning: Pulse, 88; temp., 100° F. Per orem: Chicken broth, 3 xxxij. Per rectum: Sulph. quinine, grs. xvi.; liq. opii comp., 3 ij.; beef-tea, 3 xi. General condition: Stomach quiet; sleeps well; sutures all removed; wound united down to the site of the gauze tent; no suppuration in the tract of the sutures.

Evening: Pulse, 84; temp., 100¼° F.

May 23.—Morning: Pulse, 92; temp., 100½° F. Per orem: Chicken broth, 3 xxxix.; beef-tea, 3 xvij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 ij. General condition: Satisfactory in every particular.

Evening: Pulse, 88; temp., 100½° F.

May 24th.—Morning: Pulse, 90; temp., 99½° F. Per orem: Chicken broth, 3 xix.; beef-tea, 3 xix. Per rectum: Sulph. quinine, grs. xij.; liq. opii comp., 3 iss. General condition unchanged.

Evening: Pulse, 92; temp., 99½° F.

On the eighth day after the operation the patient was removed from the cottage to the hospital, there being a slight increase of pulse and temperature the previous day. About eighteen hours later—pulse, 105; temp., 103½° F.—her condition became exceedingly critical on account of pyemic symptoms, but, fortunately, now the smaller track of the tent in the lower angle of the wound reopened and gave vent to about one ounce of purulent and very offensive fluid from the peritoneal cavity. This resulted after a couple of days in the dropping down of the pulse and temperature to 72 and 99½° F. respectively. The washing out of the peritoneal cavity two or three times daily was now commenced with a weak solution of common salt and a little carbolic acid, as recommended by the late Dr. Peaslee. For twenty days this discharge continued, seemingly from the locality of the left broad ligament, varying in quantity, and at intervals more or less long, from a teaspoonful to half a teacupful. It was, as already stated, exceedingly offensive, and sometimes more so than at others. From the sixteenth to the twentieth day after the operation the temperature again ranged from 100° to 101½° F. Then it fell to 99° F., and remained below 100° F. to the complete closure of the wound, which took place on the twenty-eighth day. During the time the wound was discharging, the patient required all the support by the mouth and rectum that it was possible to give. The quinine and liq. opii were continued per rectum, in gradually diminished portions, until the twenty-sixth day of the operation. The quantity of the former taken during the weeks' special treatment was 108 grains, and of the latter 18½ drachms; afterward, of the former 216 grains, and of the latter 22 drachms, making in all, from first to last—quinine, 324 grains, and liq. opii comp., 35½ drachms. Week's average of pulse, 92; of temp., 100° F.

The patient called upon me at my office about five months after the operation, and said she never felt

better. To all appearances she was in robust health. After recovering from the operation the uterine discharge ceased, and up to this date showed no indication of reappearance.

CASE III.—Unilocular Cyst of Right Ovary—Never Tapped—The Value of Dulness on Percussion over one Loin as Diagnostic of the side of the Tumor Confirmed—Ovariectomy with Antiseptic Precautions—Small Incision—Adhesions Unimportant—But little Loss of Blood—No Drainage-Tube—Pedicle Ligatured—Shock from Operation Considerable and Reaction Slow—Free Stimulation—Early and Continuous Support of the System by the Mouth and Rectum—Peritonitis Mild—Quinine with Opium per Rectum Commenced sixteen hours after Operation—No Cinchonism—Fever Slight—Speedy Recovery.

Mrs. E., of New York, aged 65; tall and slender; mother of two married daughters; widow thirty years; *facies ovariana* pronounced; was admitted to the Woman's Hospital, October 23, 1878, with girth of abdomen thirty-nine inches. She was very much run down in health, and bore the impress of long suffering. First noticed the tumor eighteen months previously in the right side, and within the last eight months lost eighteen pounds in weight. Tumor movable. Fluctuation pronounced. Dulness over right loin. Diagnosis clear. Never tapped.

Preparatory treatment consisted in regulation of the bowels, daily tepid baths with vaseline inunctions and nourishing diet, with free allowance of brandy.

Operation, November 1.—At two o'clock the operation, under the carbolic acid cloud, was performed. Small incision. One or two slight omental adhesions. Cyst tapped with the Wells trocar and drawn through the wound. Pedicle as usual pierced, tied with carbolized ligatures, cut, and dropped without hindrance. Tumor of the right side as diagnosed. Peritoneal cavity sponged out until all oozing of blood ceased. Wound closed with waxed carbolized sutures, and then dressed antiseptically. Shock of the operation considerable. Free administration of brandy required. Weight of tumor and contents, twenty-seven pounds. Duration of the operation, twenty-seven minutes.

AFTER-TREATMENT.

Per orem: Brandy given *ad libitum* for several hours, and then at intervals of three hours. Per rectum: Liq. opii comp., 3 i. General condition: Patient suffers considerably from shock of the operation. She rallies slowly under the free use of brandy. Pulse feeble for several hours. No nausea or vomiting.

Evening: Pulse, 88; temp., 98½° F.

November 2d.—Morning: Pulse, 92; temp., 98½° F. Per orem: Milk porridge, 3 xvij.; brandy, 3 ij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xxij.; liq. opii comp., 3 ij.; beef-tea, 3 ij. General condition: Complains occasionally of pain. Has recovered entirely from shock of the operation. Pulse full and soft. Skin moist. Stomach still quiet.

Evening: Pulse, 96; temp., 98½° F.

November 3d.—Morning: Pulse, 84; temp., 98½° F. Per orem: Beef-tea, 3 ij.; milk porridge, 3 ix.; brandy, 3 xij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., 3 iss.; beef-tea, 3 iv. General condition: Slept well during the night. Has no pain. Pulse full, soft, and regular. Skin warm and pleasant. Urine drawn every six hours and is clear. No tympanites.

Evening: Pulse, 85; temp., 99½° F.

November 4th.—Morning: Pulse, 76; temp., 98½° F. Per orem: Beef-tea, 3 vi.; milk, 3 ij.; milk porridge, 3 v.; brandy, 3 xij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., 3 iss.; beef-tea, 3 ix. General condition: Slept nearly all night. Had to be waked to take medicine and nourishment. Pulse regular, but not strong. Skin soft; urine clear; perspires while sleeping. This evening sleep is disturbed and there is a little restlessness. Opium suspended. Neither tympanites nor borborygmus.

Evening: Pulse, 74; temp., 98½° F.

November 5th.—Morning: Pulse, 72; temp., 97½° F. Per orem: Beef-tea, 3 xi.; milk porridge, 3 xvij.; brandy, 3 x. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., 3 ss.; beef-tea, 3 viij. General condition: Less restless; sleeps very well; pulse and skin good; appetite and digestion good; urine clear and normal; no tympanites; tongue a little dry and coated; very cheerful.

Evening: Pulse, 74; temp., 98½° F.

November 6th.—Morning: Pulse, 76; temp., 98½° F. Per orem: Beef-tea, 3 xij.; milk, 3 vi.; milk porridge, 3 vi.; brandy, 3 xiv. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 i.; beef-tea, 3 xij. General condition: Sleeps soundly; pulse and skin soft; passes the urine a little more frequently, which is slightly cloudy; slight tenderness of the abdomen, but no tympanites; no rumbling of the bowels or distress in the abdomen of any sort.

Evening: Pulse, 76; temp., 98½° F.

November 7th.—Morning: Pulse, 72; temp., 98½° F. Per orem: Beef-tea, 3 x.; milk, 3 vi.; milk porridge, 3 ix.; brandy, 3 xij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 i.; beef-tea, 3 xvi. General condition: Satisfactory in every particular; sutures removed; union of the wound found to be complete, excepting one or two superficial points; scarcely any discharge; only from one suture was there a show of pus; antiseptic dressings renewed.

Evening: Pulse, 78; temp., 99½° F.

November 8th.—Morning: Pulse, 72; temp., 98½° F. Per orem: Beef-tea, 3 xvij.; milk, 3 xxj.; milk porridge, 3 viij.; brandy, 3 viij. Per rectum: Sulph. quinine, grs. xvij.; liq. opii comp., 3 i.; beef-tea, 3 iv. General condition unchanged.

Evening: Pulse, 80; temp., 98½° F.

The same general plan of treatment was continued, excepting the quantity of opium, which was diminished and given at longer intervals. On the thirteenth day after the operation the patient received an enema of warm water, containing a little common salt and castile soap, which resulted in a free movement of the bowels. On the fourteenth day she was removed from the cottage to the hospital building. Now quinine and opium per rectum were discontinued, but the former was given a while longer thrice daily per orem, in two grain doses, as a tonic. During the week's treatment 131 grains of quinine and 10½ drachms of liq. opii comp. were taken, and afterwards 109 grains of the former and 7 drachms of the latter, making in all: quinine, 240 grains, and liq. opii comp., 17½ drachms. Week's average of pulse, 86; of temp., 98½° F. Patient discharged cured.

CASE IV.—*Multilocular Cyst of Left Ovary—Metrorrhagia and Facies Uterina present—Tapped Twice—Emaciation Marked—The Value of Dulness on Percussion over one Loin, as Diagnostic of the Side of the Tumor, Confirmed—Quinine Used freely before the Operation—Ovariectomy with Antiseptic Precau-*

tions—Small Incision—Adhesions very Extensive, Resisting, and Intimate with the Mesentery—Hemorrhage Considerable—Pedicel Ligatured—No Drainage-Tube used—Early and Continuous Support of the System by the Mouth and Rectum—Quinine with Opium Commenced per Rectum Three Hours after Operation—Peritonitis Violent—Cinchonism Produced at the end of Eighteen Hours—Pulse and Temperature Controlled—Nausea and Vomiting Persistent until the end of the Fourth Day—Speedy Recovery.

Mrs. T., of New Jersey, aged 47 years; German; medium stature; dark complexion; black hair and eyes; married 27 years; never pregnant; was admitted to the Woman's Hospital November 24, 1878, with girth of the abdomen measuring thirty-nine inches. She first noticed enlargement of her abdomen about a year previously. Menstruation was always profuse but regular before that date. Afterwards it became irregular, and metrorrhagia was the rule. The growth from the first was rapid. In the course of six months it was tapped twice. The first time two gallons and a half were taken, and the second one and a half. Fluid very dark-colored. During the autumn had several attacks of malarial fever, for which she took quinine largely, and since then has lost flesh rapidly. As to the diagnosis, one of my colleagues, who examined the case with me, thought the tumor was fibro-cystic; and, indeed, I thought so myself at first. The metrorrhagia and *facies uterina*, both of which existed in a marked degree, certainly warranted this supposition. Further examination and study of the case, however, satisfied me of the error of this opinion, and led me to conclude that the tumor was a compound cyst of the ovary, most probably the left, and that its surrounding adhesions were extensive and strong. Then dulness on percussion over the left loin. Up to within five or six days of the time set for the operation the patient had a metrorrhagic flow about as usual, though attended with but little elevation of pulse and temperature. From this time on, ten or twelve grains of quinine were given daily, while the patient was otherwise prepared for the operation, as by warm baths, vaseline inunctions, and the unloading of the bowels.

Operation, Dec. 16th.—The operation (antiseptic) was commenced at two o'clock by small incision. After tapping successively the several cysts of the tumor, and separating with the fingers the anterior and lateral attachments of the latter, which were quite resisting, there was still found behind it one point of adhesion to the mesentery, so extensive and unyielding as to require for its separation not only the greatest force of the fingers and handle of the scalpel, but the greatest care to avoid injury of the subjacent parts. The last obstacle being overcome, the tumor in its collapsed state was easily drawn through the wound. It proved to be of the left ovary, as previously diagnosed. The pedicle was secured in the usual way. There being considerable oozing of blood, especially from the mesentery, sponging of the peritoneal cavity was continued for some minutes. The wound was then closed with carbolized sutures, made to include the peritoneum, and the external antiseptic dressings were applied. Weight of the tumor and its contents, 17½ pounds. Duration of the operation, fifty-seven minutes.

AFTER-TREATMENT.

Per orem: Nothing. Hypodermic of M. v. of Magendie's sol. of morphia. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 i.; beef-tea, 3 iv.

General condition: Has a good deal of pain; vomits a little, and then moans continually. Pulse good.

Evening: Pulse, 108; temp., 99° F.

Dec. 17th.—Morning: Pulse, 104; temp., 98½° F. Per orem: Milk, 3ij.; milk porridge, 3xij. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., 3ijss.; beef-tea, 3iv.; mashed beef and pancreatine, 3vij. General condition: Some pain; sleeps nearly all the time; skin warm and pleasant; pulse full and strong; feels a sense of fulness in the epigastrium; urine drawn every six hours; normal in quantity and color; menstruation appears; *cinchism* at the end of eighteen hours.

Evening: Pulse, 120; temp., 100½° F.

Dec. 18th.—Morning: Pulse 108; temp., 100° F. Per orem: Milk porridge, 3x.; brandy, 3ss.; tinct. ginger occasionally. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., 3ij.; mashed beef and pancreatine, 3xvi. General condition: Slept a good deal during the night; skin warm and pleasant; pulse full and soft; has some hiccough and nausea; once vomited a greenish-looking fluid; has no pain, but feels weak; urine of claret color; four to six ounces passed every six hours; some tympanites and a little abdominal tenderness. Nourishment by the mouth stopped for the present.

Evening: Pulse, 102; temp., 99½° F.

Dec. 19th.—Morning: Pulse, 104; temp. 99½° F. Per orem: Brandy, 3ij.; coffee and milk, 3ij.; tinct. ginger. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., 3ij.; mashed beef and pancreatine, 3xiv. General condition: Sleep is interrupted, though sufficient; some headache; considerable tympanites; has eructation, and vomits a good deal of greenish fluid; tongue a little dry; again has *tinnitus aurium*, and with it slight *narcotism*; pulse and skin good; nourished entirely by the rectum; skin moist and soft.

Evening: Pulse, 102; temp., 99½° F.

Dec. 20th.—Morning: Pulse, 108; temp., 98½° F. Per orem: Brandy, 3i.; toast water, 3v.; tinct. ginger; Hoffman's anodyne, 3iss. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., 3ij.; mashed beef and pancreatine, 3xiv. General condition: Drowsy, and sleeps nearly all the time; still has some hiccough, and occasionally vomits a little dark-greenish fluid; tympanites continues; hysterical at times; cries for her husband, and wants beer to drink; urine normal; skin moist and pleasant; pulse good; pupils slightly contracted.

Evening: Pulse and temp. not stated.

Dec. 21st.—Morning: Pulse, 104; temp., 99½° F. Per orem: Milk porridge, 3v.; toast water, 3vij.; Hoffman's anodyne, 3ss.; Magendie's sol. hypodermically, ℥vij., owing to inability of the rectum to retain. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3ss.; mashed beef and pancreatine, 3vi. General condition: Sleeps a good deal; still a little nauseated, but no vomiting; passed from the rectum to-day one or two portions of the emulsion, and one portion of quinine and opium. Enemata of all sorts stopped at the regular hours for the present; food by the mouth increased; otherwise condition is most favorable; pulse good; skin moist.

Evening: Pulse, 108; temp. 99° F.

Dec. 22d.—Morning: Pulse, 112; temp., 98½° F. Per orem: Milk porridge, 3xi.; toast water, 3ij.; Hoffman's anodyne, 3ss.; tinct. ginger. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., 3ij.; mashed beef and pancreatine, 3vij. General condition: One portion of quinine and opium rejected by the rectum; hysterical excitement con-

tinues, but otherwise the symptoms are better; bowels moved once; pulse, skin, and urine satisfactory; has still some hiccough and eructations.

Evening: Pulse, 114; temp., 98½° F.

Dec. 23d.—Morning: Pulse 112; temp., 98° F. Per orem: Chicken broth, 3i.; milk porridge, 3v.; milk and lime-water, 3i.; brandy, 3ij.; toast water, 3iv.; Hoffman's anodyne, 3i.; Magendie's sol. morphia hypodermically, ℥vij., because rectum will not retain anodyne. Per rectum: sulph. quinine, grs. x.; liq. opii comp., 3i.; mashed beef and pancreatine, 3vij. General condition: Does not feel so well; more or less restless; bowels have moved once or twice; urine voided in bed several times during the day; dose not like to take food by the mouth; sutures removed, and adhesive strips applied with renewal of abdominal compress. Union of the wound throughout, excepting one small superficial point, with no suppuration in the tracks of the sutures.

Evening: Pulse, 112; temp., 99½° F.

For two days longer the same course of treatment was pursued, when the pulse, for the first time in nine days, dropped below 100. After this the quantity of quinine per rectum was diminished, and a few days later given by the mouth as a tonic. On the tenth day the patient was removed from cottage to the hospital building, and allowed to take all her nourishment by the mouth. For several days after this there was slight irritability of the bowels at times, and an occasional return of the hysterical symptoms; but the general tendency was to a satisfactory convalescence. Quantity of quinine taken per rectum during the first week after the operation, was 210 grains, and of liq. opii comp., 15½ drachms, with three hypodermics of Magendie's sol. of morphia. Afterward, by the rectum and mouth, 91 grains of quinine, and 5½ drachms of liq. opii comp. In all, 301 grains of the former, and 21½ drachms of the latter. Week's average of pulse, 108; of temp., 99° F. Patient discharged cured.

(To be continued.)

97

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND ITEMS OF TREATMENT.

ASCITES—DISPLACEMENT OF THE HEART.

The following case was interesting, chiefly because it illustrated displacement of the heart, by an accumulation of fluid in the abdominal cavity.

A male patient, æt. 40 years, entered the hospital January 7, 1879. When admitted his abdominal cavity was distended with fluid. His urine had a specific gravity of 1024, was alkaline, and contained neither albumen nor casts. The accumulation of fluid was so great that the heart was displaced. The patient was tapped, but the fluid had reaccumulated rapidly, and at the time of this note the heart was so displaced that the apex-beat was above the nipple upon the left side.

There was no evidence of cardiac disease. Such displacement of the heart by an accumulation of fluid in the abdominal cavity, was regarded as quite unusual, and showed that the patient had a feeble diaphragm. In most patients the pressure in ascites is exerted at the expense of the anterior abdominal walls chiefly. The liver is displaced upward, but not in the same

proportion as is the heart. The area of hepatic dulness is diminished to two and three-fourths inches. The man probably had cirrhosis of the liver, and the prominent symptom was the dropsy, which came on very rapidly. His abdomen began to swell about one month before admission to the hospital. His feet were also swollen.

The accumulation of fluid in the abdominal cavity in this case was more than usually dangerous because of the tendency to push the diaphragm upward. The leading symptom to be treated was the dropsy; and tapping early, and frequently repeated, was the plan recommended. At the same time such measures were to be adopted as improved and sustained general nutrition.

IDIOPATHIC INFLAMMATION AND THROMBOSIS OF THE SUPERFICIAL VEINS OF THE LEGS.

A male patient, forty years old, who had never had rheumatism, denied venereal, and had never been intemperate, was admitted to the hospital December 10, 1878, complaining of swelling and stiffness of the legs without pain. The chief point of interest in the case was the inflammation and thrombosis of the superficial veins of the legs without known cause. The veins could be felt like cords as the finger passed over them. The treatment had not been energetic. While the inflammation was going on the patient was kept in bed. After the inflammation had subsided, and nothing remained except the oedema and the thrombosis, the legs had been bandaged, and the patient had been improving. The rubber bandage was recommended, for by it the oedema could be almost entirely prevented, and the cure of the case could be made almost complete.

HEMORRHOIDS—OPERATION—DRESSING—METHOD OF CONTROLLING HEMORRHAGE.

A male patient was suffering from internal hemorrhoids. They exhibited the raspberry appearance, and were regarded as the artero-capillary variety. For the purpose of effecting a radical cure they were treated with the double ligature. The sphincter was not dilated. Treatment after the operation was believed to be sufficient to prevent spasm of the sphincter. In cases in which the pile could not be easily surrounded, Sims's speculum was recommended. The operation being completed, a suppository containing opium and belladonna was introduced well above the internal sphincter. A large piece of lint smeared with vaseline was placed over the anus and the cleft of the nates. The cleft was then packed with cotton until it was filled to a level with the tuber ischii; over that a compress was placed, and the whole was retained in position by means of an ordinary T-bandage.

But suppose hemorrhage should occur from the stump of the pile or elsewhere? A plan of treatment was recommended which, although not new, is perhaps worthy of description. Of course, effort might be made to tie the bleeding vessel. But the plan recommended as the better one was first to take a cone-shaped piece of sponge, and make it hollow; then pass a thread from the inside through the side of the sponge, over the apex of the cone, and return it to the cavity in the sponge. In that manner a loop was made which placed the sponge within the control of the surgeon. It was then to be slightly moistened, compressed, and pushed up as high as possible in the rectum upon the tip of the finger. Pieces of lint were then to be carried in until the cavity in the sponge was filled. As soon as filled, traction was to be made upon the strings, when the sponge would spread out

and press against the sides of the rectum. In that manner flow of blood upward was prevented, and the compress already described prevented any discharge from the anus. In ordinary cases it was thought advisable to leave the sponge *in situ* for thirty-six or forty-eight hours. If hemorrhage returned, the sponge could be replaced.

ANEURISM OF THE AORTA—TREATMENT BY IODIDE OF POTASSIUM.

A male patient was the subject of aneurism affecting the junction of the transverse with the descending portion of the aorta. After he had taken iodide of potassium in fifteen-grain doses three times a day for a short time, he said that he felt much better, and the heaving movement was distinctly less than before the remedy was commenced.

PERICARDITIS—PLEURISY WITH EFFUSION—DISAPPEARANCE OF AN ENDOCARDIAL MURMUR.

A boy, fourteen years of age, had suffered from rheumatic pericarditis, and at the same time and upon the same side from pleurisy with effusion. Recovery took place, and the patient walked about the hospital feeling nearly as well as ever.

The apex-beat, during the time the pleuritic effusion was present, beat in the fourth intercostal space. All evidence of liquid in either the pleural or the pericardial cavity had disappeared, and the apex-beat was in the fifth intercostal space.

One remarkable feature in the case was the following: a double pericardial friction murmur was developed, and also an endocardial, a mitral systolic non-regurgitant murmur. The endocardial murmur had disappeared, and in that respect the case was regarded as exceptional.

It was probable that complete adhesion would occur between the pericardial surfaces, and the question arose, how much practical importance was there to be attached to that fact? The answer was, that formerly it was considered as a serious result, but latterly the conclusion had been reached that, if there were no co-existent valvular lesions, the heart would continue to perform its functions very well, notwithstanding the pericardial adhesions.

Progress of Medical Science.

NEURASTHENIA AND WOMB-DISEASE.—According to Dr. Goodell, neurasthenia in women manifests itself by hysteria, spinal irritation, and a crowd of reflex symptoms, among which those of a uterine complexion often predominate. This neurosis probably consists essentially in mal-nutrition of nerve-centres, followed by disturbances in the circulation from weakened innervation (local anæmia and hyperæmia). The anæmia of the genital organs is exhibited by amenorrhœa, by neuralgic and hysterical pains; the hyperæmia by congestion, dysmenorrhœa, menorrhagia, uterine flexions, and dislocations, and a variety of subjective phenomena.

Thus, many disorders of the reproductive organs are merely the local expressions of the general neurosis. Based upon this principle, Dr. Goodell adopted Weir Mitchell's plan of treatment, as laid down in his work on "Fat and Blood, and How to Make Them," for the class of cases referred to above, and combined this treatment with a local one in those cases of undoubted uterine disease in which the con-

stitutional symptoms were out of all proportion to the local lesions. Dr. Mitchell's treatment consists, as is well known, of rest, massage, electricity, seclusion, and feeding. Dr. Goodell reports the results in several cases under his care, of which the following is an example:

A girl, of twenty, who had been an invalid for five years, was put under treatment on March 11th. At the age of fifteen the patient began to suffer from dysmenorrhœa, back-ache, ovarian hyperæsthesia, frequent attacks of hystero-epilepsy, disturbances of the bladder, obstinate costiveness, and loss of all appetite. About a year previously the patient had been treated for antelexion, and a tent was introduced into the cervix, which lighted up a very severe attack of peritonitis, after which she became bed-ridden. Upon examination, March 10th, the uterus and ovaries were very tender, the former turgid, antelexed, and bound down by adhesions. On account of the disproportion between the symptoms and the local lesions, Mitchell's treatment was advised, and entered upon the next day. The patient was not allowed to read or write, or see any of her friends, and was at once put on a skimmed-milk diet. The medicinal treatment consisted of the administration of Trommer's extract of malt, dialyzed iron, valerianate of zinc, and an occasional aperient pill. On March 18th she drank four quarts of milk; on March 28th she took four and a half quarts, three boiled eggs, and over two pounds of broiled chicken. Massage and electricity were likewise employed in the manner recommended by Dr. Mitchell. During the forty-five days of treatment she drank 208 quarts of milk, and averaged two and a half eggs daily. During this period she gained twenty-two pounds in weight, and all bad symptoms disappeared entirely. The patient has remained perfectly well ever since. Although rapid increase in flesh is usually regarded as a very trustworthy token of returning health in these cases, yet the success of the treatment does not always depend upon it, as shown by a number of cases treated by Dr. Goodell.

The symptoms in these cases were apparently due to uterine disease, yet the essence of the disease lay in the exhaustion and lack of nutrition of the nerve-centres. The patients give a history of exhaustion, wakefulness, great nervousness, constant back-ache, and ovaralgia. The objects to be secured, therefore, are, nutrition, sleep, rest of body and mind, and freedom from pain. All these indications are met by the plan laid down by Dr. Mitchell, and indicated in the history of the case furnished in the present article. —*Gynecological Transactions*, vol. iii., 1879.

CHARCOT ON THE SOMNAMBULIC AND CATALEPTIC CONDITION IN HYSTERIA.—The patient, a hysterical woman of 21, in one of Charcot's wards, was directed to fix her eyes upon a bright light. In a few seconds she became cataleptic and completely anæsthetic. The limbs were flexible, and assumed any position in which they were placed by the operator. If the hands were placed near the lips, as if in the act of throwing a kiss, the features would assume an "osculatory" expression; if the hands were placed as in a begging position, the face assumed a corresponding expression, etc. These phases have been termed suggestive phenomena, and last as long as the impression of the bright light upon the retina continues.

If the light is removed a condition of somnambulism (hysterical lethargy, Charcot) is produced. If the patient were standing (in the cataleptic state) she would fall backward, the head thrown back, the neck

arched prominently. The eyes are closed, and a whistling inspiration is heard, accompanied by noisy movements of deglutition. Muscular hyper-excitability is induced in this condition; the slight friction of the skin will produce contraction of the underlying muscles. Another feature of this condition is a constant motion of the upper eyelid, convulsions of the globe of the eye in various directions, and persistent anæsthesia. If the patient be loudly spoken to she will arise, direct herself towards the person speaking; she will stand, sew, write, etc.

The eyes are, however, closed or partly closed (the muscular sense seems to replace the sense of sight, M. Azam). The patient answers questions and the intellect seems to be exalted. She is restored to consciousness by merely breathing or blowing on the face, or pressing on an ovary, and has no recollection whatever of what has transpired.—*St. Louis Courier of Medicine*, March, 1879.

NOTES ON THE USE OF THE HÆMACYTOMETER IN ANÆMIA.—We must remember that the hæmacytometer does not compute the number of blood-corpuscles in the body, but rather the proportion which the corpuscles bear to the serum of the blood, and that a great deal also depends upon the quality of the corpuscles, *i. e.*, upon the amount of hæmoglobin which they contain.

In ten carefully examined cases of anæmia the average of the red corpuscles at the onset of treatment was 62 per cent., and in the three worst cases the average was less than 46 per cent. None of these patients were laid up by the disease; and they were all able to walk to the out-patient room.

The corpuscular richness of the blood is seldom accurately represented by the appearance either of the skin or the mucous membranes. In an apparently extreme case of anæmia the patient was confined to her bed, the pulse was very frequent, there were numerous syncopal attacks and frequent vomiting, the face was nearly as pale as a sheet, and the conjunctivæ almost blanched; there was some suspicion of hysteria. Examination of the blood showed the number of corpuscles to be not far from normal, so that the case was not one of anæmia. Under appropriate treatment the patient was well in a fortnight.

Again, the corpuscles reach the normal amount some time before the patient's symptoms have disappeared; *i. e.*, the number of corpuscles may be increased out of all proportion to the increase in their hæmoglobin.

The marked effect of iron in increasing the number of the red corpuscles was well seen in a case of surgical anæmia. A considerable portion of the skull was removed by operation in a patient with a fractured skull. Secondary hemorrhage occurred, at the commencement of which the corpuscles averaged 76 per cent. The hemorrhage continuing, they decreased in a week to 50 per cent., when the common carotid was ligatured. The hemorrhage then ceased but the corpuscles nevertheless diminished in amount to 38 per cent., three days after the operation. The patient was then ordered ferrum redactum, five grains daily, and a nourishing diet. In two days the corpuscles had risen to 50 per cent. and in a fortnight to 100 per cent.—*Lancet*, May 10, 1879.

EXCISION OF PAPILLOMA OF BLADDER.—M. C., æt. 34, was admitted to St. Mary's Hospital, under the care of Mr. Norton, suffering from the effects of long-continued hemorrhage from the bladder. On examination per urethra, a tumor one inch square, coated with phosphatic calculus, but not much raised above the mucous membrane, was discovered occupying the

trigone, about half an inch from the sphincter. It was evident that the tumor must be removed, and the patient submitted to the risks attendant upon a severe operation, or she must be left to endure the tortures brought about by the contraction of the bladder upon the growth after micturition, and with the certainty of an early death from hemorrhage, or from blood-poisoning. It was impossible to remove the growth through the urethra, and it was decided to cut the mass away by opening the vagina. It was considered that the growth could not be cleared without cutting through the urethra, and the operation was performed as follows: The spring-scissors were inserted, one blade into the bladder nearly up to the tumor, and the other into the vagina, and closed; the front wall of the vagina was then incised centrally to within half an inch of the uterus, and the vaginal wall, which was found not to be incorporated with the growth, was dissected from the bladder; the growth was then seized with the vulsellum forceps and drawn forward, and was then excised by the scissors and removed. Bleeding was arrested by the actual cautery, and the lateral flaps of the vagina approximated by sutures. To prevent further hemorrhage a catheter was inserted, and the bladder compressed by plugging the vagina; no hemorrhage of importance took place. The temperature remained below normal, and the pulse rose to 120. Severe vomiting persisted until the tenth day after the operation, when she was considered out of danger. On the twelfth day, when apparently in health, she vomited, and shortly afterward fell asleep, in which sleep she died from syncope. At the autopsy the wound was green, and sloughing upon the surface, but healthy immediately beneath. No peritonitis, or cellulitis was present, nor any thrombosis of vesical, pelvic, or iliac veins. A microscopical examination showed the tumor to be a papilloma. Since writing this case Mr. Norton had operated upon a second case of tumor of the bladder, which had completely recovered from the effects of the operation.—*The Medical Press and Circular*, May 14, 1879.

ANTAGONISTIC AND ANTIDOTAL POWERS OF CHLORAL HYDRATE.—Dr. Husemann found that in rabbits chloral hydrate acted as an antidote to strychnine, to the combination of strychnos bases known in commerce by the name of leucine, and to thebaine, which produces tetanic symptoms, and at the same time diminished sensibility; the chloral controlled the spasms, and, within certain limits, warded off death. On the other hand, when non-lethal doses of chloral hydrate were administered to rabbits poisoned with ammonium chloride, the fatal termination resulted more rapidly than when lethal doses of either ammonium chloride alone or of chloral alone were employed, probably because of the combination of the paralyzing effects of both drugs on the respiratory centre. The spasms excited by the ammonium chloride were, it is true, relieved or even entirely controlled by non-lethal doses of chloral hydrate, but still death ensued.

Dr. Husemann found the antidotal power of chloral hydrate to be much less against codeine than against picrotoxin. The chloral controlled the spasms and saved life when only the minimum fatal dose, or the minimum dose increased by one-half of codeine was administered, but it was unable to do so when double the minimum dose was given. On the other hand, the life of the rabbit could be saved by chloral when even five times the minimum lethal dose of picrotoxin had been administered. Hence it would

be incorrect to assume that because chloral is a powerful antidote to picrotoxin, it is equally so to the other so-called cerebral irritants.

Against calabarine the action of chloral is the same as against codeine; in poisoning by baryta, however, it is not even able to relieve the symptoms, far less to save life. In poisoning by carbolic acid it does not completely control the spasmodic muscular movements, nor is it able to ward off death, even when only the minimum lethal dose of the acid has been administered. On the other hand a combination of lethal or of non-lethal doses of carbolic acid and chloral hydrate causes a more excessive depression of temperature than is observed in acute poisoning by carbolic acid, or by chloral alone.—*Allg. Med. Cent. Zeit.*, March 8th.

OYSTER-SHUCKERS' CORNEITIS.—Under this name Dr. McDowell, of Baltimore, describes a peculiar form of ophthalmia which attacks oyster-shuckers alone. The disease presents itself as a dense pearly opacity, about the size of a small pin-head, almost perfectly circular shape, and located at or near the centre of the cornea. The outline of the spot is sharply defined, but it is surrounded by an area of hazy infiltration, a line or a line and a half in diameter, which fades off insensibly into clear corneal tissue. The minute, pearl-like central opacity looks most deceptively like a small fragment of shell imbedded beneath the epithelial layer. The condition is usually attended by marked circumcorneal scleral injection, photophobia, lachrymation, ciliary neuralgia, etc. The cornea at the point of the dense central opacity, in the vast majority of cases, takes on ulcerative action, but the ulcer rarely spreads to any dangerous extent either in depth or circumference. In a few cases, however, where treatment was too long deferred, Dr. McDowell observed necrosis of the whole central portion of the cornea; in these cases, after a long period of high inflammatory action, the destroyed tissue was replaced by a dense and permanently opaque cicatrix. When seen sufficiently early, the disease can usually be arrested in from three to seven days. All of the acute symptoms will subside in that time, but the opacity disappears very slowly, weeks being always required for the complete resorption of the effused products. The treatment is the same as for the ordinary forms of corneal inflammation and ulceration.

The diagnosis of this affection from a traumatism, is at first very difficult, especially as the patients often assert that "a piece of shell flew into the eye." The appearances are so characteristic, however, that a mistake is not likely to occur after the affection has once been recognized. Dr. McDowell is disposed to attribute the disease to a specific toxic element contained in the slime and dirt which coats the oyster-shell, and which is introduced directly into the eye.—*Virginia Med. Monthly*, Febr.

A TRAINING-SCHOOL FOR NURSES has been established in Washington, D. C. It has a full corps of lecturers, and is otherwise thoroughly organized for its work. There are now nine such schools in the United States; three in New York, three in Boston, one in Philadelphia, one in New Haven, and one in Washington.

MEMORIAL TO THE LATE DR. MURCHISON.—A movement is on foot to raise a memorial to the late Dr. Murchison. St. Thomas's Hospital and the University of Edinburgh are especially promoting it.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, July 26, 1879.

THE PREVENTION OF YELLOW FEVER.

THE occurrence of cases of yellow fever in the Southwest has called forth the best efforts of the National Health Board to stay its progress and prevent the spread of panic. Ever since the organization of this body its members have been active in gaining all the possible information regarding the origin and spread of yellow fever, particularly in the districts where the disease prevailed last summer. As the result of such investigations the Board has settled upon some general principles of action which are calculated to meet any emergencies which may arise.

Although acting as an advisory body to the different State Boards, it has the power, when the latter fail to act, and when there is recognized danger of an epidemic, to use such means and to resort to such measures as are best calculated to insure the requisite safety. It will also be recollected that with a liberal appropriation at its command it has the facilities for aiding pecuniarily such districts as are unable to help themselves. This gives a force to any recommendations made by the Board which entirely circumvents any question of States' rights, and leaves local health authorities to accept them independently and act accordingly.

The design of the National Board is to give such general directions as may be required, and which, for the most part, embody the mildest restrictions concerning local sanitation and quarantine as seem to be demanded. This is erring on the right side, and while it gives no cause for any show of dissatisfaction from the State authorities, it leaves the latter to exercise any extra power which they may deem to be necessary. Indeed, the execution of the recommendations is left to State officers, all that is necessary being that said officials shall be dutiful and competent.

In regard to the matter of quarantine, the present conclusion appears to be that each seaport town must

have regulations of its own consistent with the character of its trade, the condition of its harbor, and the facilities for carrying out details. As the result of much discussion, the question has very properly, we think, been left in that state. With inland quarantine a proper understanding is not so easy regarding the means to be adopted for its proper establishment. There are so many ways by which such rules can be evaded that, at first sight, any attempt to establish a practical system would appear to be impossible. Still, a good beginning is made in the recent recommendations by the Board regarding railroad travel, the aim being to disinfect the cars and change them as often as possible when used for any long distance on a road.

Except under extraordinary circumstances there is to be no interruption in travel, care being taken only to guard against the spread of the disease from town to town, or among the passengers along the line. Every train leaving an infected town is to be inspected by a competent medical man and a certificate of the results of the same is to be given to the conductor, and also a certificate to each passenger. No fever patients are allowed on any train, and suspicious cases are to be quarantined. The cars and baggage are to be thoroughly disinfected with sulphurous acid gas before the time of departure, and no upholstered cars are to be used unless, after a thorough disinfection, they are exposed to the open air for at least twenty days. At a point not less than five miles from the place of departure, there shall be an entire transfer in the open air of passengers and baggage to other cars, which cars are not to enter an infected district. After a journey of fifty miles from the point of departure another transfer of freight and passengers is made, the cars disinfected, and then returned. Mail matter is to be exposed to a temperature of 250° F. before being sent from these districts. In case an infected place is on the line of a railroad, trains may pass through, but will not be allowed to stop within a mile of the station, at which place passengers with proper inspection certificates may be taken. No train having a certificate of such inspection, and no passenger having a proper certificate that he was free from disease and that his baggage was properly disinfected, shall be interfered with by any municipal or other local systems of quarantine.

It will be seen that while everything is done to prevent the spread of the disease along the lines of railroad travel, the latter is not interrupted and the passengers are subjected to the least possible inconvenience. Again, the regulations have the great advantage of being reasonable, of appealing to the common sense of the travelling public, and of thus insuring their willing co-operation. No possible objection can be urged against the measure, except perhaps on the part of the railroad companies, who may be put to some inconvenience thereby. Still, there is no doubt that they will be willing to accept such conditions of travel,

under the authority of the National Board, rather than run the risk of quarantine by local authorities at any given point along their lines. Herein, by the way, the great utility of a National Board is shown, in that it is competent to reduce inland quarantine to a system which is uniform throughout all the infected districts, and to protect the travelling public from any imposition by local authorities. Its recognized authority also, and the publicity which is given to its recommendations, are such as insure respect, attention, and obedience from all parties concerned. In fact, the public at large is prepared to act upon any reasonable suggestion from any such body having its confidence, and having the means to enforce obedience to regulations. This being the case, it is with peculiar satisfaction that we notice a late recommendation of the Board to the effect that it is of the utmost importance that all towns, whether in suspected districts or not, should be under strict sanitary regulations, and that everything should be done to insure the greatest cleanliness in-doors and out. This, whatever we may believe regarding the origin of yellow fever, lies at the bottom of the prevention of all epidemics, and cannot be too strongly or too persistently enforced.

Since going to press with the last number of the *RECORD*, our best hopes regarding the immediate disappearance of yellow fever from the city of Memphis have been dissipated.

The scourge has reappeared, and quarantine against the city has again been established by most of the prominent cities of the South and South-west. Business, for the most part, has ceased, and those who can, are fleeing for their lives. But there are many doubtless who will find it impossible to escape, and will be compelled to remain exposed to the dreadful disease. For these unfortunate ones we hope nothing will be left undone to afford the greatest possible degree of immunity and relief.

THE NATIONAL BOARD OF HEALTH.

FROM its inception, we have recognized the formation of a National Board of Health as a forward step of great significance in our national care for the public welfare. It is the first extended recognition of the necessity of general sanitary legislation, and of national provision for the nation's health. Every earnest student of sanitary progress in England and on the Continent has recognized how sadly we were wanting in administrative oversight of so great an interest. We have always waited for evils to accumulate, or for the wild route of some epidemic to impress us with the need of guarding against disease. True, various isolated quarantine systems have seemed to take it for granted that all disease is imported, and so have made provisions of guarded expediency. It is a great step to unify methods of quarantine, and to get the admission which the bill for the prevention of contagious diseases formulates,

that the interests of public health are so all-prevailing, that no little question about State rights must dispute jurisdiction. We would as soon think of ceasing effort to put out a fire, because it had got beyond the county line.

The National Board is scarcely able to get wisely and vigorously at work, before the alarm at Memphis brings it face to face with important questions of sanitary administration. Very crude and diverse views as to the powers of the Board exist with those who have not fully grasped its intent.

First of all, it is intended to be largely a gatherer of facts, a recipient of information. It might keep busy a year or more merely in studying the actual state of things all over the country and on the seas, in order to avail itself of facts upon which it can safely predicate advice or action. It must first receive and digest information before it can be expected either to issue complete codes or to be very active in execution.

Next, it is largely an advisory and emergency Board. It does not limit the action of States. It would be a sorry result if city or county turned from self-help, with the idea that here is a power to meet every exigency. It rather presents a motive to every part of the nation to bestir itself for home work in all sanitary care and discipline. We can now easily get wise counsel, expert direction, and be encouraged in a way which gives great moral and social strength. The fact of its existence, and the work it is doing, settles all questions as to the feasibility and necessity of close sanitary care. The character and known ability of its members is a large guarantee that discretionary powers are safely lodged with such a body. All sanitary codes, if good for anything, must delegate large powers, and then hold the authorities as responsible for their discretion as for their legality of methods. This Board is held to the strictest accountability in the use of the moneys confided to it. Exact statements must be made to the Secretary of the Treasury as to the kind of expenditure proposed, and disbursements must be made with the fullest evidence of due service rendered. It is not a great charity fund, upon which with a gush of sympathy all may draw. We take it as a sacred trust for the investigation of facts, for the closest study of causes, and for the watching of the course of disease. If there is to be any permanent benefit therefrom, which shall outlast the peril of an epidemic, we are to see to it that other fountains of charity are not dried up, and that a part of the allowance be dedicated to the closest scrutiny of the causes of various diseases, and the best preventive methods.

Already the Board has shown itself equal to any emergency, and prepared in a proper way to meet any real contingency. The order from the Treasury Department of \$25,000 to Memphis, was not made without placing its expenditure under such definite in-

structions as will make it tell for the limitation of the disease. We are told that from multitudes of sources applications for pecuniary aid from other districts hastened to the national office, and that a sign that no appointments were being made on application had to be posted. Individuals or municipalities may not get all they ask, but with allowances for mistakes consequent to the initiation of any new system, this Board will be found efficient and successful. It has, and well deserves the confidence of the medical profession, and of those laymen of large experience who have studied the methods of sanitary administration. It has now under close surveillance the South and South-west, in its most exposed points. It has its own trusted methods of inspection, and a very large correspondence, so as to ascertain facts with accuracy. It is not improbable that multitudes of infected particles are hidden here and there in many a Southern city, and will record their cases. Nor is it improbable that a faithful cleansing by local authorities just now, before any outbreak, and the readiness of this Board to at once insist upon right measures, will limit the disease just as a fire is limited when not permitted to gain headway. It is real fire, and cannot at once be annihilated; but it can be prevented from attaining the proportions of an epidemic. Thus far we are encouraged. The circulars and the bulletin of the National Board show that it has its studied methods and its plan of campaign laid down. We beg physicians all over the South and West, while not alarmists, to be intensely watchful, and to fully acquaint themselves with all the advisements of this Board, and mayors and council boards to do the same.

Reviews and Notices of Books.

ON DISEASES OF THE ABDOMEN, by S. O. HABERSHON, M.D. Second American from Third English edition. Philadelphia: Henry C. Lea. 1879. 8vo, pp. 554.

It is occasionally a relief to take up a work, comprehensive in character, which does fill up valuable space in carrying each disease through the whole course of the world's history. Dr. Habershon has given us such a book, and we have to thank him that we can learn everything about gastric ulcer without being distracted by a story of its probable origin among the Troglodytes and subsequent modification among the Fins. The work is eminently a practical rather than a classical one. It abounds in well-condensed illustrative cases, and its descriptions of diseases are clear and complete. We miss the elaborate classifications and tables of differential diagnosis which are the usual dress of the modern medical work, but we do not know that it is any less serviceable on this account.

One of the best written chapters is that on functional disorders of the stomach. Dyspepsia is divided into five different forms, characterized respectively by derangements in the mucous membrane and gastric juice; in vascular supply; in the nerve supply; in impeded muscular movements; and in fermentation

of the contents of the stomach. Under these various heads all the symptoms of indigestion are drawn, and valuable indications for treatment given.

In the present edition two new cases of gastrotomy have been added, making seventeen in all. The record is not a cheering one, as all the patients soon died, and only two even survived the operation.

Other additions have been made to the book, bringing it well down to date. On the whole, although it does not rise to the dignity of a classic, it forms an extremely useful manual for the ordinary practitioner.

FISTULA, HEMORRHOIDS, PAINFUL ULCER, STRICTURE, PROLAPUS, AND OTHER DISEASES OF THE RECTUM; THEIR DIAGNOSIS AND TREATMENT. By WILLIAM ALLINGHAM, Fellow of the Royal College of Surgeons of England, Surgeon to St. Mark's Hospital for Fistula and other Diseases of the Rectum, etc., etc., etc. Third Edition, partly re-written. Philadelphia: Lindsay & Blakiston. 1879.

THIS, which may be justly considered the best practical treatise on the diseases of which it treats in the English language, has been most thoroughly re-written. Some of the opinions expressed in former editions have been modified in consonance with the increased experience of the author, who is certainly the most earnest worker in his special department, and his large experience has been brought to bear upon the innovations of the past ten years.

In Chapter IV. the treatment of fistula by elastic ligature is considered. He regards it as valuable in many cases, and frequently invaluable as an auxiliary to the knife, its application inflicting little or no pain, causing no hemorrhage, and peculiarly adapted to sinuses running high up, and such sinuses Mr. Allingham emphatically states should be divided as far as they go. He gives a woodcut of an ingenious contrivance for passing the ligature.

In Chapter VIII. he refers to the views of Verneuil, based on his own and the dissections of Gosselin in 1864, Dubrend and Richard, 1868, and by Duret in 1877, which the French surgeon thinks have proved that the superior hemorrhoidal veins only are connected with the portal system, and solely form internal hemorrhoids, external piles being formed from the external and middle hemorrhoidal, which are connected with the general venous system. These dissections demonstrate that the sup. hemorrhoidal veins, at a height of about four inches, perforate abruptly the muscular coats through "véritables boutonnières musculaires," the contraction of which in abnormal conditions causes stasis and the tumors recognized as internal piles, and on this theory Verneuil bases the now fashionable treatment strongly advocated in France—the treatment by dilatation; our author explains his objections to the views and treatment of his French confrère, and their study will well repay perusal.

In the operative treatment of internal piles, Mr. Allingham objects to the *écraseur* of Chassaignac, or the wire of Maisonneuve, caustics of all kinds, save the application of nitric acid in exceptional cases, to the application of cautery "ponctué," "linear" or galvanic wire. In reference to the American method by introduction of carbolic acid into the interior of such growths, he says: "I tried the injection plan on some few cases, but the result was much pain, more inflammation than was desirable, a lengthy treatment, and the result doubtful; certainly not a radical cure."

In many cases he asserts dilatation will give wonderful relief; but as often no good results, and his

preference remains for ligature applied, as in the manner so long used by Mr. Salmon.

Chapter XVII. treats of ulceration and stricture of the rectum, and the doctrines are almost exclusively those of the English school. In treating of the etiology of stricture, he devotes considerable space to a review of the opinion first enunciated by Gosselin, and subsequently studied by an equally acute observer on this side of the Atlantic, and placed prominently before American readers in an article on "Venereal Stricture of the Rectum," by Erskine Mason, *American Journal Medical Sciences*, January, 1873. Mr. Allingham does not believe that soft sores are a cause of stricture, and although he fortifies his position by the testimony of such authorities as Mr. Jas. R. Lane, Walter Coulson, and Christopher Heath, we do not think he invalidates the claim that such lesions are at least among the causes of stricture. Of course we are well aware that the new light brought to bear by recent investigators has materially modified the opinions that have prevailed since Gosselin's views were given to the profession; and we believe that pathologists have satisfactorily proved the existence of several causes. We do not refer to obstructions produced by the cicatrization of tuberculous and dysenteric ulcers, but only to those of venereal origin. Tournier speaks of three causes: 1st. Ulcerous syphilides, late secondary and tertiary. 2d. Gummy infiltrations, one case only recorded by Verneuil, none ever observed by Tournier himself. 3d. Syphilôme anorectale, an infiltration of the anorectal walls, the initial structure of which is as yet undetermined, but susceptible of degenerating into a retractile fibrous tissue, and constituting in that way intestinal coarctations of greater or less extent. Duplay likewise speaks of syphilôme anorectale as a production localized in the rectal walls in a manner similar to interstitial syphilitic hepatitis, which results from a specific deposit in the parenchyma of the liver. The cellular tissue is invaded by a neoplasm of syphilitic origin, by gradual infiltration that ends in retraction. He also thinks that the irritation to which the rectum is subjected is the determining cause.

Chapter XVIII., cancer of the rectum, has much new matter in it, with a number of histories of cases of excision.

The remaining chapters are devoted to rodent or lupoid ulcer, and villous growths.

and intestines; in the second, bronchi and lungs, were the sources of high death-rates.

Mortality diminished with every day of advancing life. Every additional hour improved the baby's chances for preservation. Almost one-half of the infants dead before the end of the first year died before they were one month old. Thus the causes of disease were the more active the earlier they were brought to bear upon the young with their defective vitality.

Two grave conclusions were to be drawn from that fact. The first was, that the diminution of early mortality depended on avoiding diseases of the digestive organs by insisting upon normal alimentation. That was principally important in the first few months. While breast-milk had been shown to lower infant mortality through the whole first year, it did so more in the first few months. Thus, though an infant might not be fed on breast-milk through the whole normal period of nursing, a great gain, indeed, was accomplished by insisting on nursing, though for a limited time, perhaps two months only. There were but few mothers but were capable of nursing during that brief time, and none who ought to be spared the accusation of causing ill health or death to her baby if she refused to nurse it at least through the first dangerous months. The second conclusion, resulting from many figures, was that the dietetic problems and rules for the infant concerned the digestive organs mainly, so much so indeed, that infant dietetics and the dietetics of the infant digestive organs appeared nearly identical.

It was true that in this city we met with a high mortality, even in children of more than a year. In fact, public opinion looked for a higher mortality in the second than in the first summer. The fallacy of that assumption could be easily corrected by the statistical reports. The second summer was the period of danger in part only because of the heat of the season, but mainly of the errors in feeding. Conscientious and intelligent families in good circumstances were not apt to lose their infants in their second summer.

Nor was it necessary that he should insist upon the danger incurred by the belief that diarrhoea—a pathological condition—was a normal attendant on and a relief of a physiological process such as dentition. It was certain, that very few, if any, popular beliefs had been more destructive than that an intestinal catarrh must be left alone, no matter from what source it originated.

Healthy infants had a normal tendency to loose, liquid, or semifluid evacuations from the bowels. The causes were partly in the condition of the intestinal tract, and partly in the nature of the normal food, viz., breast-milk. The peristaltic movements were very active; the young blood-vessels were very permeable; the transformations of surface cells very rapid; the peripheric nerves very superficial, more so than in the adult, whose mucous membrane and submucous tissue had undergone thickening by both normal development and morbid processes. In the young infant the peripheric ends of the nerves were larger in proportion than in the adult; the anterior horns of the nerve-centres were more developed than the posterior ones. Thus the greater reflex irritability of the young, particularly in regard to intestinal influences, was easily explained. Besides, the action of the sphincter ani was not quite powerful, the fæces were not retained in the colon and rectum, and no time was afforded for the reabsorption of the liquid or dissolved constituents of the fæces. Moreover, the frequency of acids, sometimes normal, in the small

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 26, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

THE TREATMENT OF INFANTILE DIARRHŒA.

DR. A. JACOB read an important paper on the above subject, of which the following is an abstract:

Of all the deaths in the first year of life forty per cent. in round number were due to diseases of the digestive organs, and half as many to such of the respiratory organs. In the second year the main cause of death changed completely; for of all the forty-five per cent. of deaths taking place in that year, but nine were due to digestive, and thirty-six per cent. to respiratory disorders. Thus in the first year, stomach

intestines gave rise to the formation of alkaline salts with purgative properties.

The nature of breast-milk, even when absolutely normal, was such as to facilitate frequent, large, and fluid evacuations.

FAT.

First, as to its fat where no food was given but mother's milk, *a good deal of fat was eliminated without any change.*

What had been called detritus in the fæces was mostly fat, and very probably remnants of intestinal epithelium. Practically that fact was of the very greatest importance. The conclusion was, *we were almost certain to give too much fat; it was scarcely ever probable that there was too little.* Therefore the addition of cream was reprehensible, no matter in what shape. Thus in the most normal milk there was more fat than required.

In the first period of lactation the glandular transformation was not yet accomplished. It required days to exhibit casein. At the same time the percentage of butter and salts was very high indeed, both of which explained the *laxative* character of colostrum.

There was no stability in the nature of breast-milk, and very much less in the human than in the animal female, for obvious reasons. Its constituents and effects might even change from hour to hour, from day to day, sometimes it would be milk, sometimes milk with transuded serum.

SUGAR.

Again, as to sugar. It was abnormally plentiful in colostrum, and in some milks, at times, its percentage was lower than normal. In the former it was purgative, in the latter its absence one of the causes of constipation. Thus the addition of a piece of sugar—which need not be milk sugar—to breast-milk was apt to heal constipation in the infant. He dissolved it in the smallest possible quantity of water, say a teaspoonful, and let the baby take it before each nursing.

CASEIN.

Fourthly, as to casein. When present in an abnormally high percentage, it might either constipate or by remaining undigested, and, acting as a local irritant, produce a diarrhoea. In those cases of diarrhoea the stools were mixed with white flocculi, small or large, sometimes in astonishing quantities and for a long period. The treatment of such diarrhoea was by no means very simple, unless the breast-milk was changed. When such a change could not take place, he added oatmeal gruel or barley-water in such a manner, that a few teaspoonfuls of it were administered to the baby before each nursing.

Dr. Jacobi then passed to the examination of some of the articles of food mostly used for the young.

Goat's milk ought to be rejected because of its large percentage of fat.

Cow's milk contained more butter than human milk, and if the latter was not entirely digested, the former would certainly leave even more remnants to encumber the intestinal canal. The reaction of human milk was alkaline, that of cow's milk rarely to the same degree.

But the main difficulty was in the large percentage and in the nature of the casein of cow's milk. The casein of cow's milk and the casein of woman's milk were two different substances. The former had an acid reaction and was soluble in water in the proportion of 1-20. The latter was alkaline or neutral, and almost entirely soluble in water. There was less casein in

woman's milk than in cow's milk. The fact was beyond doubt that pure cow's casein was very much less digestible than human casein.

At all events, no addition we knew of could render cow's casein more digestible than Nature made it, and the only thing which could be obtained by any sort of manipulation of the milk was to make it less injurious. Perhaps, however, the plan upon which Dr. J. Rudisch had acted might recommend itself to the attention of the practitioner. In order to make cow's milk more digestible, he had introduced into Dr. Jacobi's practice a mixture which promised to be of great value in all those cases in which coagulability of the milk was the prominent obstacle to its usefulness. The mixture suggested by him, and used by them up to that time mainly in diseases of adults, such as anæmia, gastric catarrh, ulcer of the stomach, slow convalescence, etc., was the following: to one pint of water add one-half teaspoonful of official dilute muriatic acid. To that mixture add one quart of raw cold milk; mix the two liquids thoroughly and then boil for ten or fifteen minutes. He had found that preparation to be very digestible, and well tolerated by very feeble digestive organs. Valuable as that preparation of cow's milk might prove in future, there was one method for making cow's milk more available, which was at once simple and effective. No cow's milk ought to be administered without the addition of chloride of sodium. Not only cow's milk, but also—and even much more so—farinaceous admixtures to cow's milk required its presence in the food.

PREVENTIVE TREATMENT.

The preventive treatment of diarrhoea, depending on defective alimentation, consisted in so changing and arranging the milk used for babies that the casein would not coagulate in large lumps, and thus become more digestible. That object could be obtained by adding such farinaceous food as did not contain much starch. It consists in diluting the boiled and skimmed milk with barley-water or oatmeal gruel. It must be boiled to check its tendency to become sour, to remove a portion, though small, of its casein and fat, and to expel the gas contained in the raw milk to the amount of three per cent.

Of the two, he preferred barley for general use. He recommended that the barleycorn which was employed for infant diet should be ground as thoroughly as possible in a coffee-mill, both in order to diminish the period necessary for cooking it, and also in order to retain the gluten. *It was even preferable, for very young infants, to cook the barley whole for hours, thereby to burst the outer layers of cells, empty their contents, and then, by straining, to get rid of the larger part of the starch which was found toward the centre.* There was no danger to which little children were so liable as that which arose from their tendency to diarrhoea. His advice, therefore, was to administer barley to children who manifested a tendency to diarrhoea, and oatmeal to those having a tendency to constipation, and, whenever a change occurred in the intestinal functions, to give one or the other, according as constipation or diarrhoea predominated.

He held that mixture to be the *conditio sine qua non* of the thorough digestion of the milk. It only would insure the proper nourishment of the infant. With that food alone he had seen children endure the heat of summer without any attack of illness whatever. He had occasion again and again to be convinced of the reliability of the mixture. It had the advantage, too, that it necessitated no dependence upon the honesty

or competence of the apothecary or manufacturer, but could be prepared by any one, however poorly situated. Should a slight diarrhoea occur, or a little casein be vomited (a rare accident, to be sure), or casein occur in the stools, then all that was necessary was to diminish the proportion of milk. It might sometimes be necessary, though very seldom, to withdraw the milk entirely for a time, but only in cases of real illness. If the physician or attendants had properly apportioned the ingredients of the mixture, we might be rather sure that the child's digestion and assimilation would be regular and normal. Infants that were partly nourished at the breast almost invariably thrived well with the addition of his mixture. Children, from their fourth or fifth month and upward, might often be fed with it exclusively, and not unfrequently nothing else was given from the day of the birth.

The addition of barley or oatmeal for the purpose of rendering milk digestible was not, however, absolutely indispensable, though he had learned to prefer them. For, gum-arabic and gelatine were also very valuable ingredients, indeed, of infant foods. Dr. Jacobi then dwelt at some length upon the changes which gum-arabic and gelatine undergo when put into the stomach.

CURATIVE TREATMENT.

The amount of food should not be larger than we had reason to expect could be easily digested. At all events, either lengthen the intervals between the meals or reduce the quantity of food given at one time, or both. When diarrhoea made its appearance in infants who had been weaned, it was desirable to return them to the breast. Those who never had breast-milk might be given the breast if they could be induced to take it, but only rarely would that be found possible. Whenever a child at the breast was taken with diarrhoea, the passages from the bowels should be studied as to their contents. If a certain amount of curd was found in them, the least that was to be done was to mix the breast-milk with barley-water. That might be done in such a manner that, each time before nursing, one or two teaspoonfuls of barley-water was given the child, so that the farinaceous food and the breast-milk mixed in the stomach. Or, it might be found advisable to alternate breast-milk and barley-water. In bad cases, particularly when the milk was found to be white and heavy, and contained a great deal of casein, it would be found necessary to deprive the child *altogether* of its usual food. In such cases, the child would do better on barley-water alone (that to be continued for one or two days), than to expose it to the injury which would certainly follow the continuation of the casein food.

When diarrhoea occurred in children who had been fed alone upon cow's milk, unmixed or mixed, it was necessary to reduce the quantity of cow's milk in the mixture. As a rule, we had to remember that cow's milk alone was apt to produce diarrhoea, and it should be considered as a maxim that, whenever diarrhoea made its appearance, the amount of cow's milk given to the child should be reduced. When a mere reduction of the quantity did not suffice, it was very much better to deprive the child of milk food altogether. Not infrequently the removal of milk from the bill of fare was the only thing which would restore the child to health. It was possible that a mixture, such as recommended by Dr. Rudish, already mentioned, would be found digestible, even in such cases. In many cases, as a dietetic measure, it would be found advisable to add one or two tablespoonfuls of lime-water

to each bottle of food with which the child was supplied.

In those cases in which barley-water did not seem to suffice as a nutriment, or where it would be dangerous to allow children to lose strength, a mixture which he had used to great advantage was the following: Mix the white of one egg with four or six ounces of barley-water, and add a small quantity of table salt and sugar, just sufficient to make the mixture palatable. The child could take this either in large or small quantities, according to the case.

In those cases in which the stomach was irritable, and vomiting had occurred, it was now and then better to give a small quantity, even one or two teaspoonfuls, and repeat the dose every ten, fifteen, or twenty minutes, than to give larger quantities at longer intervals.

In those cases in which the strength of the child has suffered greatly, he recommended the addition of brandy to the mixture in such quantity that the child would take from one drachm to one ounce (grms. 4.0 to 30.0), more or less, in the course of twenty-four hours.

In those extreme cases in which the intestinal catarrh was complicated with gastric catarrh, where the passages were numerous and copious, and vomiting constant, where both medicines and food were rejected, there was frequently but one way to save the patients, and that was to deprive them *absolutely* of everything in the form of either drink or food or medicine. It was true that such babies would suffer greatly from thirst for an hour or two, but it was a fact that, after two or three hours, those children would look better than before the abstemious treatment was commenced. Not infrequently four or five hours of total abstinence would suffice to quiet the stomach and diminish both the secretion and the peristaltic movement of the intestinal tract. In some cases *six* or *eight* hours of complete abstinence would be required; or such children might be starved for even *twelve* or *sixteen* hours, with final good results. The first meals afterward must be quite small, and they would be retained, and, as a rule, such children would subsequently do well.

Dr. Jacobi here enforced the necessity of supplying the patient with as much cool fresh air as possible. The worst out-door air, was better than close in-door air. If possible, the children should be sent immediately to the country and into the mountain air.

The *second* indication consisted in the removal of undigested masses retained in the intestinal tract. Not only in cases in which the diarrhoea had resulted from previous errors in diet of the child, but also in those cases dependent upon sudden changes of temperature and exposure, it was desirable to empty the intestinal tract. For that purpose castor-oil, calcined magnesia, or calomel might be used.

Third. Nothing should be given that contained salts in any sort of concentration. Thus, beef-tea should be avoided. It must be remembered that that form of meat-extract contained a very large amount of salts, and that the direct effect of those upon the intestinal canal might be productive of very unpleasant consequences. If the people insisted upon giving it, and there was no special contraindication to its use in a given case, it should be administered only in connection with some well-cooked farinaceous vehicle, and the best of all for that purpose was barley-water; or it might be mixed with beaten white of egg, but no more chloride sodium should be added. For the main danger in beef-tea was the concentrated form in which its salts were given.

Fourth. Everything should be avoided that in-

creased peristaltic motion. Thus, carbonic acid and ice internally.

Fifth. Avoid whatever threatened to increase the amount of acid in the stomach and intestinal tract. There was so much acid in the normal, and still more in the abnormal stomach and intestinal tract, that it was absolutely necessary to *neutralize* it. For that purpose it was safer to resort to preparations of calcium than of sodium or magnesium. So far as lime-water was concerned, its administration, certainly, was correct chemically. But we should not place too much reliance upon that popular remedy. We should not forget that it contained about one part of lime to eight hundred of water, and that it was necessary to swallow at least two ounces of the fluid in order to obtain a single grain of lime.

A further indication was, *the necessity of destroying ferments.* For that purpose most metallic preparations would do fair service. One which had been extensively used, was *calomel*, and now in *small doses* frequently repeated— $\frac{1}{16}$, $\frac{1}{8}$, or $\frac{1}{4}$ a grain [0.1 0.15 0.03] every two or three hours. As to its effect as an anti-fermentative, there could be no doubt.

Nitrate of silver, when given for the same purpose, should be *largely diluted*. From $\frac{1}{16}$ to $\frac{1}{8}$ of a grain [0.0015 0.004], dissolved in a teaspoonful or tablespoonful of water, might be given every two or three hours, and not infrequently with fair result. That was especially important with regard to injections of nitrate of silver into the rectum, where it was apt to do as much harm as good. Whenever it was to be given in that way, the solution should be mild and largely diluted, or the anus and its neighborhood should be washed with salt water before the injection was administered.

Bismuth acted very favorably. Moderate cases of diarrhoea would usually show its effect very soon. Doses of from $\frac{1}{4}$ to 2 or 3 grains [0.03 0.20], given every two or three hours, would act very favorably indeed. In those cases in which the diarrhoea had lasted for a long time, the doses of bismuth should be large in order to be certain of immediate contact of the drug with the sore surface.

A *final indication* was the depression of the hyperæsthesia of the general system and of the intestinal tract in particular. There had been authors who condemned the use of opium altogether, which, certainly, was incorrect. The doses should be *small*, and they might be repeated frequently. Administered in that manner, opium could be used with perfect safety both internally and in an enema. One of the rules for giving opium was that the child should not be waked up for the purpose of taking the medicine. Whenever there was fear of collapse, it was safer to give $\frac{1}{16}$ of a grain (0.0003) every half hour or hour, than to administer $\frac{1}{8}$ of a grain (0.0012) every two hours.

Alcohol.—Small and frequent doses would certainly stimulate the nervous system, digestion, and circulation, and they also stimulated the skin and increased perspiration. Alcohol, given in that manner, certainly arrested fermentation. Moreover, it took the place of food, and acted favorably as food when no solid carbohydrates were tolerated by the intestinal tract. As it was absorbed in the stomach, so did it protect the intestinal tract.

Finally, it is necessary to reduce the amount of secretion taking place from the surface of the intestinal tract. For that purpose astringents might be used, such as alum, lead, tannic acid, pernitrate of iron, and, what had already been spoken of, nitrate of silver. In all those cases in which the stomach participated in the process to any considerable extent, almost any astringent would prove ineffective. To

fulfil several indications at the same time, it was often good practice to combine remedies.

The main indications were to neutralize acids, to reduce nervous irritability, to arrest secretion, and to change the condition of the surface of the catarrhal mucous membrane.

For that purpose, in the generality of cases, he combined bismuth, opium, and chalk, according to the following formula:

B. Bismuth subnit. gr. i. (0.05)
Prepared chalk grs. ij. (0.10-0.20)
Dover's powder gr. $\frac{1}{4}$ (0.02)

That combination was suitable for a baby *ten or twelve* months of age, and the dose could be repeated every two hours. In all those cases in which acid was very abundant, it was necessary to increase the doses of antacids without necessarily giving large doses of opium.

Hot bathing was especially serviceable in those cases in which the surface was cool and the temperature of the body, measured in the rectum, was pretty high. To relieve intestinal pain, plain warm fomentations; to relieve heat, cold applications were sufficient.

Camphor stimulated the heart, and reduced temperature, and might be used internally or subcutaneously according to the necessities in the case. For subcutaneous injections it might be dissolved in either oil or alcohol. The effect derived from camphor as a stimulant was not permanent, but very much more so than that produced by carbonate of ammonia. The dose might be from $\frac{1}{4}$ to $\frac{1}{2}$ a grain [0.015 0.03] every hour or two, when only a moderate stimulation was required. In urgent cases it might be given in doses of from *five to ten* grains in the course of an hour, and usually the effect would be favorable. It was, however, only in cases in which real collapse was present that doses of five or ten grains would be required.

There was no remedy that would act more favorably in conditions of great debility and collapse than *musk*. It might be given in doses of five or ten grains, and repeated every half-hour or hour. More than two or three such doses would not be required to yield a result.

The paper being before the Society for discussion, DR. WILLIAM H. THOMSON remarked that, doubtless, each one of us had, by experience and reflection upon that experience, been led to the conclusion that in the course of years we became more or less a law to ourselves. He was very glad that the opportunity had been afforded for some one to come in contact with his own ideas, and none more acceptably than the author of the paper, who was one of the most eminent authorities in his department in this county. In certain respects he disagreed with Dr. Jacobi, and was sure that he dreaded the beginning of dentition, as having a direct bearing upon the etiology of some of the more serious forms of summer diarrhoea, which occasionally occurred with the suddenness and explosiveness of true cholera. The reflex effect from the irritation incident to dentition was to suspend the secretion of gastric juice, hence he had been led to administer bromide of potassium early in the treatment of infantile diarrhoea, and, as he thought, with good results. He employed it as an agent that arrested reflex irritation. He had been led to believe there was a difference between the diarrhoea due to local irritation, such as teething or fermentation of the contents of the intestines, and the diarrhoea which seemed to be due to sudden nervous paralysis. The one he would regard as a catarrhal diarrhoea, and the other

as a true choleraic diarrhoea. It had appeared to him that there was a difference between the two classes of cases from the very beginning. The manner in which the choleraic diarrhoea began—without any evidence of distress accompanying or preceding the discharges, but the existence of large watery passages and the sudden development of grave cerebral symptoms,—had led him to regard its access as very often due to an infection of a kind not dissimilar to Asiatic cholera. It was in the choleraic class of cases in which the effect of camphor seemed to be beneficial, and to be indicated from the very commencement. He always ordered camphor or some remedy allied to camphor in any case of diarrhoea in which there is much looseness of the bowels without pain, and he directed special attention to that point, to be noticed by the attendants upon children in warm weather. Camphor, unquestionably, was a substance which was not dissimilar to carbolic acid and the whole array of spices, which were antiseptics when taken internally. He relied very much upon them. The action of spices was very similar to the action of camphor, and in some cases peppermint and allspice were combined with small doses of camphor, preferably in those cases in which there was great irritability of the stomach.

Lastly, as to the question of the use of hot water for the purpose of restoring the circulation in cases of threatened collapse, he fully agreed with Dr. Jacob in the employment of the agent for that purpose, for he had used it with great success to overcome sudden and exceedingly dangerous contraction of the peripheral arteries. He used large hot-water injections, and ordered them to be given as freely as possible. He thought the hot water acted in two ways: 1. It aroused the patient; and 2. It allayed the peristaltic action of the intestines. For dysentery he gave but little medicine, but constantly washed out the lower bowel with hot-water injections. Finding that it was equally well borne in the dysentery of children as adults, and allayed the irritability of chronic dysentery, he tried it also in cholera infantum, and strongly recommended its use.

The Society then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 14, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

WAXY DEGENERATION OF THE PLACENTA.

DR. C. HEITZMANN presented microscopic specimens prepared from six placentae, which exhibited a change in placental tissue heretofore undescribed. In all the cases premature birth had taken place; the earliest at the fifth and the latest at the eighth month of uterogestation. To the naked eye, the placentae exhibited grayish or yellowish patches scattered through the solid part, the decidua, and less marked through the villous portion.

In all the cases the diagnosis of fatty degeneration of the placenta had been made, and Dr. H. was of the same opinion when he first saw the specimens. In all, the size of the placenta was normal, corresponding to the month of pregnancy. In all, the fœtus was well developed.

In some of the cases the fœtus was dead at the time of its birth, and in those in which the child was born alive it died shortly after, breathing only a few times.

In no instance was there any clinical history of syphilis.

In a number of the cases the premature birth occurred in apparently perfectly healthy women.

The first specimen was a placenta that was presented to the New York Pathological Society by Dr. Salvatore Caro, as an illustration of fatty degeneration, and taken from a woman who had had a succession of premature births dependent upon that cause.

Dr. Heitzmann had examined the specimen many times, and had failed each time to find any microscopical evidence of fatty degeneration, although the gross appearance was such as indicated its presence. The specimen had been preserved in chromic acid, a fluid not unfavorable to the perfect preservation of fatty tissue, and yet he had not been able to discover anything which he could call fatty degeneration. On the contrary, the microscope revealed a change that had not heretofore been described as existing in the placenta. There was found a peculiar homogeneous, shining material, which took carmine, was slightly stained with chloride of gold, and presented the ordinary appearance of waxy degeneration. There were no protoplasmic bodies present. In the villous portion the same change existed, but to a less marked degree. A large number of the capillaries were lost, being transposed into the same material. The myxomatous tissue of the placenta was missing altogether in the portions affected. This change Dr. Heitzmann had found in six specimens of so-called fatty degeneration of the placenta, and the question arose in his mind, Was there any such thing as fatty degeneration of the placenta? Was not the change, which had been regarded as fatty, a waxy degeneration?

In one case the fœtus was examined, and no evidence of waxy degeneration could be found.

The report was presented as a provisional one.

DR. C. C. LEE asked Dr. Heitzmann if he was able, from his researches, to suggest any therapeutical measures to prevent the change described?

DR. HEITZMANN replied that so long as we did not know what the essential chemical change was, we could not expect to reach any conclusion regarding its therapeutics. The microscope thus far had given but few practical facts with regard to therapeutics.

DR. J. C. PETERS referred to the fibrin-destroying function of the liver, and suggested it might be barely possible that, in those cases in which syphilitic contamination was not present, attention might be directed to that organ.

DR. HEITZMANN thought that fibrin did not have much to do with the change known as waxy degeneration.

DR. J. W. HOWE believed it fair to assume that other observers were correct in reference to what they had determined to be fatty degeneration of the placenta.

CYSTITIS — SUPPURATIVE NEPHRITIS — PERINEPHRITIC ABSCESS — ACUTE PERITONITIS.

DR. C. C. LEE presented the urinary organs removed from a woman who died from acute peritonitis following perinephritic abscess, which in turn followed pyelitis and cystotomy:

S. J., æt. 36, born in London, widow, had been ill for eighteen months with symptoms of cystitis. She had previously been treated for Bright's disease and antelexion of the uterus. At times she had passed a large amount of pus with urine, which, at other times, was quite clear. No uræmic symptoms had ever occurred. She was admitted to the Woman's Hospital October 24, 1878. A long course of treatment for her cystitis produced no benefit, and February last she was transferred from Dr. Emmet's

service to Dr. Lee's. At that time her bladder was contracted and so irritable as to hold only an ounce of urine. As all her previous treatment had failed to relieve it, he performed cystotomy February 12th, keeping the opening patent with a glass tube. In ten days the bladder symptoms improved greatly, but sweating, high temperature, and chills began to appear and recurred regularly. Quinine was used freely without benefit. The tube was removed on March 21st. In ten days from that date pain appeared in left renal region, and in two days this was followed by a circumscribed swelling, which indistinctly fluctuated. It was aspirated and pus was obtained. Aspirated twice again, and finally opened freely under spray; abscess washed out daily; drainage-tube kept in; but the patient slowly sank, and died April 24, 1879.

Autopsy twenty-four hours after death. — Body emaciated. There was an incision about two centimetres in length in left lumbar region, five centimetres above the middle of the crest of the ilium. That incision extended through the abdominal walls into an abscess seated on the anterior face of the left kidney. That abscess had opened into the peritoneal cavity, so that a probe could be passed from the external opening directly into the peritoneal cavity, the internal opening being nearly opposite the external, being situated to the left of the descending colon, three centimetres above the crest of the ilium. The accumulation of pus in the abdominal cavity, which communicated with the perinephritic abscess, was encapsulated by recent adhesions between the intestines and the abdominal walls in the left lumbar and iliac regions. There were about eight ounces of pus thus shut in. There was also a moderate amount of general peritonitis, evidenced by recent fibrin on the visceral and parietal peritoneum. There was a small abscess in Douglas's cul-de-sac about the size of a pigeon's egg, situated on the right side and encapsulated by recent adhesions.

Heart normal; decolorized post-mortem clot in right ventricle.

Pleura: Extensive old pleuritic adhesions on right side. Lungs normal.

Spleen normal.

Kidneys: The *left* kidney was changed into a sacculated mass; the cavities were filled with pus; numerous small abscesses were in the septa which separate the larger cavities; the pelvis was not dilated; on the other hand, it appeared contracted, and its mucous membrane thickened and coated with pus. There seemed to be no kidney parenchyma left; the capsule was thickened; there was a sloughy abscess in the connective tissue outside of the kidney, especially on the anterior surface; the perinephritic abscess was surrounded with indurated tissue, and, as above described, communicated both with the external incision and with the peritoneal cavity. The kidney measured twelve centimetres in length. The left ureter was somewhat dilated, but more noticeably its walls were greatly thickened and very dense. The *right* kidney was enlarged, and presented on its surface and cut section numerous small, yellowish-white streaks and nodules (beginning of acute interstitial nephritis). The pelvis was injected. The ureter was normal.

Bladder: It was contracted, and contained about a teaspoonful of muco-pus; the mucous membrane was of a dark slate-color, with a patch of livid injection on the posterior surface, corresponding to where the cervix of the retroverted uterus had impinged against it. The walls of the bladder were of normal thick-

ness. The openings of the ureters were free and normal. There was a fistulous communication between the posterior surface of the bladder and the vagina on its anterior wall.

Uterus: The uterus was retroverted, and bound down by adhesions of moderate firmness. The posterior lip of the os externum was split, and one portion projected, as a polypoid excrescence, into the vagina. The mucous membrane was smooth and normal. The uterus and vagina were in other respects normal.

The *ovaries, rectum, and liver* were normal.

Stomach: It presented a stellate fibrous cicatrix on its anterior surface.

Intestines normal.

DR. LEE remarked that he presented this specimen simply because of its surgical interest. It was the only case of cystitis on which he had operated, knowing the patient to be the subject of Bright's disease. He believed the obstinate cystitis justified the operation under the circumstances.

(To be continued.)

Correspondence.

ALCOHOLIC INEBRIETY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In almost every medical journal, both English and American, as well as continuously in the secular press of both countries, inebriety is becoming discussed as the crying evil and curse of the day. Medical societies and religious organizations over both countries have earnestly deliberated and pondered over various plans to check it, well-meaning and zealous temperance lecturers have traversed both sides of the ocean, and fanatical women have in some cases banded together under the name of crusaders, and brought their might to bear down upon it, and still the evil seems to increase instead of diminishing. Vendors of alcoholic drinks have been burdened with heavy taxes, and in many cases their houses closed either by local law or mob force, and still the number of inebriates is surely on the increase. To condemn none of these efforts is my intention. They are all commendable, or at least the object had in view is commendable. I do propose, though, to say that they have all failed to devise a plan to check it, and the object of this short paper is to suggest a plan I have long thought the only effectual one.

When a man or woman is charged with lunacy, the law provides that a jury be called and proper investigation and inquiry be made as to the mental sanity or insanity, and if the jury adjudge the party a lunatic or insane, he or she is committed to an asylum *volens volens*, and until the superintendent of said asylum declares the patient restored and of sound mind, the law takes from him or her all right of contract or rights of purchase or conveyance.

Is not an habitual inebriate an insane person? Is he capable of thinking or acting for himself or those who are dependent upon him? If he is insane—incapable of transacting or performing the duties he owes to himself, his family, his friends, or his community—should not he and his family and friends, and the community in which he lives, have the same protection by law as if he were insane from any other cause? It seems but fair that they should. Then what are the laws to be enacted? Simply these: Let each

State make laws levying a special tax on every manufacturer and vendor of intoxicating liquors; let the fund thus created be appropriated solely to the erection, support, and maintenance of as many inebriate asylums as may be necessary, and then, in every case of habitual drunkenness or inebriation, let the law be made to apply as in any other case of insanity. Let a jury of inquiry be called, and if, upon careful investigation, the charge be fully sustained, let the party charged or investigated be so adjudged and committed, divested of all the rights taken from any other lunatic, until the superintendent or expert under whose care he has been placed shall decide that he has been sobered and become rational. Then when informed of the action of the strong arm of the law in taking from him his power to purchase or convey any property, he will be brought to a realization of his responsibility or irresponsibility, and thus, I believe, more effectually be broken of the habit.

It may be urged against these views that they are too radical, or that the burden of taxation falls too exclusively on men in one line of business. The first may, at first glance or thought, be true. The second is in no way true, for the tax comes upon the inebriate and not on the vendor. It may also be supposed that these thoughts originate in the mind of a total abstinence man, a teetotaler, or a *Murphyite*. Not so. I recognize the very great value of alcoholic and malt liquors when not abused, and would scarce know how to do a general practice of medicine without their use in many cases.

Expecting that many objections will be raised to these views, and recognizing myself some of them, I am prepared to hear them. And having heard them, I will only ask those objecting to name a more feasible or effective plan.

Very truly and respectfully,

J. M. KELLER, M.D.

HOT SPRINGS, ARKANSAS, June 17, 1879.

DOES SUCCESSFUL VACCINATION PROVE THAT SMALL-POX HAS NOT BEEN RECENTLY EXPERIENCED?

REPLY TO DR. C. IRVING FISHER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Several months since, while I was sitting at breakfast, I was called into my office, and found there a stranger, divested of his coat, and with the shirt-sleeve rolled up one arm. As I entered he saluted me thus, pointing to his bare arm: "Is that a good vaccination?" After examining his "arm," thinking he was one of those too numerous nuisances who amuse themselves by threatening unfortunate sons of *Æsculapius* with the terrors of the law for using "dirty pock," I said: "I don't know why you ask; but I have no objection to telling you that it is, not only a good, but a remarkably successful vaccination, done some three weeks since, and with virus which probably came from this office, or if not, with virus derived from what was originally supplied by my son or myself; you could not have had so perfect a result if ever vaccinated before, unless in very early infancy." I need not describe the appearance of his arm. On it were (I think two) perfect, typically accurate vaccine crusts. He went on to tell me that he had been treated, in a country town, as a subject of small-pox within five weeks or so, had been subjected to great hardship and to humiliation, such as any one who has had the misfortune to have, or to be

suspected of having small-pox, in a New England village can alone appreciate. After regaining his liberty, he was led to suppose that he had not had small-pox at all, and had been vaccinated as a test. He said that he was shunned by every one in his neighborhood; that people, his friends, ran away from him, and yelled to their children to keep out of his way; and, to crown all, his former employer refused to take him again into his "shop," saying that if he should, he would not have another man in it in five minutes. If I had not had an exceptionally large experience in this sort of thing, I should have supposed the man a lunatic, or that I had been hearing of heathendom in the dark ages, of the realms of Mumbo Jumbo in the days of Prester John; but I knew too well that all the man told me, from his condemnation on suspicion of varolous criminality, to the last unkindest cut of refusal of employment, was, if not *erai*, at least *erai-semblable*. He asked me to give him a certificate that he had not had the small-pox. This I told him I could not do; that he might have had the disease at some remote period. Although the perfection of his vaccination rendered this unlikely, it was nevertheless possible. I told him I would give him a certificate that he had not had small-pox during the previous few (I think five) weeks. This I consented, nay, possibly volunteered to do, for the sole reason that it seemed possible that such a document might serve to rehabilitate him as a human being, assuage the terror of his fellow-citizens, and restore the poor fellow to a possibility of earning his bread. This certificate was by no means justified in my mind by the success of his vaccination *alone*. Though that was, under the circumstances, an important piece of evidence, it was not the only, hardly the chief one. My opinion was based on the man's quite coherent and consistent narrative of his case and its symptoms, the success of his vaccination, and the total absence, within a very few weeks after the commencement of an attack of small-pox, with considerable eruption, of all traces whatever on the entire cutaneous surface.

It occurred to me, when yesterday quite accidentally reading the note of Dr. Fisher in your issue of June 14th, that I might possibly be the "member of the Massachusetts Medical Society" who "very kindly (?) advised a lawsuit, etc., etc. There can hardly be a doubt of it, although I am not *absolutely* sure, for I did not ascertain or try to ascertain the name of the doctor, or where he resided. The man, after he got the certificate, said something about instituting a suit, and tried to get me to approve it. I not only did not do this, but strongly advised him to try to get back to his work, and let the law alone; and this I did without any regard to the justice of his cause, but on the ground of the "law's delay," uncertainty, and expensiveness, and the probability that the proposed defendant, being a regular physician, had no funds to satisfy a verdict in damages, even if the plaintiff should obtain one. I wish most pointedly to state, however, that I gave this advice because I always give it in such cases, and not because the doctor was a possible member of the Massachusetts Medical Society.

I do not consider it one of my duties as member of that society to lie to shield a brother member from the consequences of his malpractice, nor do I consider it entirely established that members of the Massachusetts Medical Society are, *ipso facto*, incapable of gross ignorance and malpractice. I *know* better. Not to go beyond small-pox, I knew an instance in which a prominent member of that old and illustrious association condemned to malignant and

confluent small-pox and the Bridgewater almahouse a young fellow with a gonorrhoea, who, in doctoring himself out of that, had doctored himself into the most magnificent case I ever saw of the peculiar eruption (without fever, headache, or anything else like variola) which follows the continued use of large doses of copaiba. I rescued him as he was being taken to the cart which was to convey him to Bridgewater, and in two days he was at work as usual. Another, who sent to the "pest-house" a case of scabies, and absolutely (not to be taken in a second time) himself took small-pox, with which he was marked for the rest of his life, from a patient with the disease whom he was attending and treating for the itch. Another, who allowed the numerous friends of a patient with supposed varicella to visit him freely, and, when one or two of them came down, they too were chicken-pox. It was not till quite an endemic of variola occurred, and some died, and some got into other doctors' hands, that the member of the Massachusetts Medical Society admitted that the varicella was unprecedentedly severe, and presented peculiar and curious features, unlike the usual "plan of creation" in such cases. This will do; but how many of us have known of neighborhood small-pox scares whose only foundation was in varicella and measles? I sincerely hope that Dr. Fisher's fears may prove groundless, and that the case will not go into court; but if it does, and I am not mistaken in supposing that he and I are writing about the same thing, and I should be summoned, I shall certainly not perjure myself for his sake, though all the thunders of that Olympus of the Massachusetts Medical Society, the counsellors thereof, should be launched on my devoted head for refusing to do so.

Dr. Fisher's query affords a grand opportunity for the ventilation of such cheap erudition as is readily accessible in any good hand-book of vaccination (say Seaton's). I will not indulge in that way at present, but from my own pretty large experience in the vaccination of soldiers and other adults said or known to have had small-pox previously, glean a few items. Although most of these failed to evince any susceptibility to the vaccine disease, there were still many who proved thus susceptible. Those in whom vaccination "took," however, were adults, and, generally, adults approaching middle age, who had passed through small-pox in infancy or at very remote periods of early life. I think there is ample evidence within my own experience to prove that, if an infant has small-pox and survives till full adult life, he is then as susceptible to a second attack or to vaccination with original cow-pox virus, or the as vigorous and effective lymph obtained by the proper transmission of original cow-pox on a series of bovines as if, instead of small-pox in infancy, he had then been vaccinated with either of those vigorous and perfect "strains" of virus. That there is not such ample evidence of this as of the success of revaccination with vigorous lymph, is because, while every child that is vaccinated (notwithstanding the doleful and prodigious mortality of the anti-vaccine fools) survives the operation, recovery from small-pox in infancy (under two years) is a very rare thing. During the great variolous pandemic of 1872-3 (what a mortality would then have been *sans* vaccination!! It is not too much to say, beyond any within authentic historical record) my office was thronged, for several months, with people to be vaccinated. One day the office door opened and in walked the very worst and most pitiful small-pox wreck that I ever saw,—a woman of fifty and over, who had lost

one eye, and whose face was not a face but a cicatrix. "Oh!" said I, "are you come to be vaccinated too?" I was ashamed of the smile which, quite involuntarily moved my features, when she quietly answered, "yes; that she had had small-pox, as I could see, but it was when she was under a year old, and her reading and her own judgment had led her to believe that she might be again susceptible to the disease, and, as I might suppose, she dreaded it." I vaccinated her and she had an "arm" as perfect as any fine primary vaccination, which indeed it was, for she had never been vaccinated before. This case was only apparently more marked than on a patient in whom small-pox had not left such dire traces because the patient was more so, but it was very striking. I had several cases, in the army, of successful vaccination of men marked with small-pox, but always by an attack at remote periods of early life. Of such cases Dr. Fisher will doubtless easily obtain accounts from his *confères* and find them in the prodigious literature of small-pox and vaccination, where, with diligence, he may find almost anything; but he will probably find it difficult to procure many authentic narratives of cases in which a vaccinated or unvaccinated patient, having just passed through and quite ended with a case of small-pox or varioloid, proves susceptible to the vaccine disease in a very perfect form. If he succeeds in thoroughly and undoubtedly establishing his own case, he will make what is not often done nowadays, a really valuable addition to the literature of vaccination.

HENRY A. MARTIN.

27 DUDLEY ST., BOSTON, July 11, 1879.

THE MECHANICS OF LATERAL CURVATURE OF THE SPINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In an important and valuable essay on Pott's disease, recently reviewed in your columns (July 12th, pp. 39, 40), there is an erroneous reference on page 34 to some work done by me several years ago in the study of lateral curvature of the spine. I would like to state that the preparation referred to as moving in obedience to checks and springs was constructed to show that rotation is mechanically an inevitable incident of lateral curvature, and not to explain the etiology of the disease.

It was argued in brief that, as the posterior portion of the column is a component part of the parietes, while the anterior portion is free to move laterally, a lateral curve of the column would be necessarily attended with more displacement laterally of the anterior than of the posterior portion, the motion thus produced being rotation.

This view was thought at the time to be new. Its novelty and correctness have not, so far as I am aware, been gainsaid.

Yours, etc.,

A. B. JUDSON, M.D.

NEW YORK, July 15, 1879.

AN ORDER FOR NURSES.—Queen Victoria has instituted the order of St. Katherine as a reward of merit for those nurses who have distinguished themselves by long service and good conduct. They receive a badge of the Order and an annuity of \$250 for three years. Three nurses have already been decorated.—*British Medical Journal*.

Obituary.

GEORGE HEATON, M.D.

In the city of Boston, on the first of the present month, died Dr. George Heaton, a graduate in medicine at the University of Pennsylvania, 1840, and member of the Massachusetts Medical Society since 1842, a citizen of credit, a man of the sincerest principles of honor, and a physician whose attainments in the practice of an arduous profession were of a high and thorough standard. Unassuming in his deportment, both among and outside the profession, reticent to a degree that always marks the man of earnest calibre, liberal in his views as to the various doctrines that inculcate the masses of humanity, Dr. Heaton filled a place in the community that needs no lasting monument to denote the loss his death occasioned beyond the very attributes of moral and professional standing that this paragraph refers to. Not only to those who were contemporary with him in the service that he followed, but to the citizens of the commonwealth whose adopted son and useful citizen he was, and to suffering humanity who have, by the brilliant exploits of his genius, the direct sympathy of his professional presence, and the explorations of his master mind, reaped health—the one great boon on earth above all others—must any allusion to his career possess more than an ordinary amount of interest.

Dr. Heaton was born in Alton, Illinois, on the nineteenth of April, 1808. Of his earlier days, his schooling and preparation for the profession he had chosen, we have but little knowledge, nor is it essential to the brief allusion to one or two incidents in his career that are intended. In 1840, or immediately about that period, he was physician to the prison at St. Louis, and at that time is dated a discovery which marked an epoch in the life of the physician whose researches brought forth such light, and an era in the history of surgery that ranks high among the blessings of the practice in any age. This was the discovery of the radical cure of rupture, or hernia, reducible and irreducible, and also for the cure of varicocele and hydrocele. What greater favor in the world could be vouchsafed the human family, who, to a degree, far in excess of any other proportion of ills, are victims to a malady so trying to the hopes of those who suffer, and so exhausting to the patience of those whose skill heretofore had so often failed to make the right provision for a remedy? This discovery was the stepping-stone to a career of high professional fame for the inventor of a process, now given to the world; and right here commenced a series of incidents in his career, of which many must have a vivid recollection.

Soon after the proper test had been made of the efficiency of the process, Dr. Heaton, leaving the West, came to Boston, and commenced the practice of medicine in this city, celebrated for the high attainments of its professional men of all arts, as well as for the special high order of all the thinking men who have prominence in any range of life. Flushed with youthful pride at what he naturally and justly thought to be a complete revolution of practice upon this great human malady, Dr. Heaton moved immediately to bring out his operation more fairly to the medical profession. There are those who will no doubt remember that he was not much more than courteously received in his first advances to the

gentlemen of the profession. The work that he described was so simple, so painless in comparison with the older methods, and so perfectly and concisely stated, that the practitioners here were incredulous than an operation so trifling should be so effective as he described it. Those whom he had invited to attend and witness its performance did not consider it worthy of their attention, and with some coolness of manner did not hesitate to show such appreciation, and this, also, in view of the fact that it had already become known that the inventor had effected radical cures on a number of patients. Not disconcerted in the least, Dr. Heaton went to London, taking with him the *secret* of his invention, determined, in view of the treatment he had received, to give it to the old world, and let it reach the new, if it did, without either his assistance or his favor in any degree beyond his own practice. The operation for hernia was presented to the profession in London, who received it with great cordiality. Dr. Heaton was at once launched upon the topmost round of the ladder of professional skill. His acquirements were readily recognized, and his fame spread in proportion to its great desert. The hospitals of London and Paris were the scenes of his very frequent attendance, and operations were also successfully performed, not only upon the private patients of other physicians, but upon several of the nobility. He soon became a Fellow of the Royal Chirurgical Society of London, of the Westminster and London medical societies, and still later of the Parisian Medical Society of France.

After remaining abroad some time he returned home, and patients flocked to see him from all parts of the world, who were treated and cured by the thousands. His patients becoming so numerous he opened a large private hospital in Boston, which was constantly filled for nearly thirty years. In all this time Dr. Heaton had kept his own experience. He had intended to make public the method for curing hernia, and to do so in connection with his only son, Dr. George A. Heaton, U.S.A., who died, however, while young in life and in the practice of medicine, from disease contracted in the service during the late war while serving as surgeon. His death was the signal for at least a temporary defeat of all such projects. The idea was given up. The father, stricken almost into the grave by the loss of the son, closed his utterance to all idea of that character, and was wending his own way towards the tomb, with the invention yet unplaced beyond his own hand; and the profession, though no longer incredulous, longing, for humanity's sake, that its greatness should be placed upon its proper pinnacle, and its fame, already acknowledged, be displayed far and wide. Later in his life, Dr. Heaton, whose health was failing and whose grief for the loss of his only son seemed to become more intense as the months rolled on, formed the acquaintance of Dr. Joseph H. Warren, of Boston, and between these two gentlemen there ripened a friendship of strong character. Dr. Warren was held by Dr. Heaton not only as his friend, but also as his physician in the days when the great mind succumbed to the ravages of illness, and the wasting life acknowledged the necessity of a brother physician's treatment. It was during his last illness that Dr. Warren, in the course of many conversations with Dr. Heaton, induced the latter to give to the public and to the profession a volume explaining the simple methods of the cure that had made him so famous. This need not be described, even if there were space, for "Heaton on Rupture," although but a few years

(less than four) on the list of text-books, is already standard and valuable to the profession, who of necessity, as well as honest candor, must acknowledge the praise that is due Dr. Warren for the persistent argument he used with Dr. Heaton, and the successful result he thus attained in procuring the publication of the volume. In the production of the many papers attendant upon the work, Dr. Heaton was assisted by Dr. J. Henry Davenport, whose skill in the preparation and edition is deserving of no slight praise. To Dr. Warren is due the honor of obtaining for the use of the profession the golden secret, which but for the friendly advice and persistent appeals of that physician would have gone to the grave with the inventor. It might naturally be supposed that before the close of his life Dr. Heaton bequeathed to Dr. Warren the original and simple instruments with which he had performed such a multitude of cures, and in the pursuit of a practice that also followed Dr. Heaton's wishes. Dr. Warren has brought the simple tools into successful use on his own and Dr. Heaton's patients, who are all now referred to Dr. Warren.

Dr. Heaton was the possessor of very great wealth, obtained in his practice. His efforts were worthy of it, and his invention demands that his fame should not suffer with his death. The friendly appeals that induced him, almost against his settled determination to give no details of his discovery and no guide to the future profession of medicine, are as well entitled to their credit, and the act of Dr. Warren in inducing his friend to add another link in an honorable chain that surrounded his career must have its high allowance by medical men and by the world at large.

That honor which is due men for any achievement redounding to the benefit of their fellow-men should never be withheld.

Boston, July, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 13 to July 19, 1879.

SMITH, JOE R., Major and Surgeon. Having reported in person at Headquarters, assigned to duty as Medical Director of the Department, to take effect from 25th instant. G. O. 8, Dept. of Texas, June 28, 1879.

MOFFATT, P., Capt. and Asst. Surgeon. Having reported at Headquarters, assigned to duty at Camp Winfield Scott, Kittitas Valley, W. T. S. O. 81, Dept. of the Columbia, July 3, 1879.

CORSON, J. K., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 75, Dept. of Arizona, June 27, 1879.

KANE, J. J., 1st Lieut. and Asst. Surgeon. Relieved from duty at Jefferson Barracks, Mo., and to report to Commanding General, Dept. of the Missouri, for assignment to duty. S. O. 164, A. G. O., July 15, 1879.

BREWSTER, W. B., 1st Lieut. and Asst. Surgeon. To report in person to Commanding General, Dept. of the Platte, for assignment to duty. S. O. 164, C. S., A. G. O.

BANISTER, J. M., 1st Lieut. and Asst. Surgeon. Relieved from duty at Columbus Barracks, Ohio, and to report in person to Commanding General, Dept. of the Missouri, for assignment to duty. S. O. 164, C. S., A. G. O.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. Relieved from duty at Willett's Point, N. Y., and to re-

port in person to Commanding General, Dept. of Dakota, for assignment to duty. S. O. 164, C. S., A. G. O.

RICHARD, CHARLES, 1st Lieut. and Asst. Surgeon. Relieved from duty at David's Island, N. Y. H., and to report in person to Commanding General, Dept. of Dakota, for assignment to duty. S. O. 164, C. S., A. G. O.

CARTER, W. F., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Monroe, Va., and to report to Commanding General, Dept. of Texas, for assignment to duty. S. O. 164, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 19, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 12, 1879.	0	4	63	5	78	22	3	0
July 19, 1879.	0	8	69	4	53	22	3	0

HAVANA, AND THE COMMISSION APPOINTED BY THE NATIONAL BOARD OF HEALTH. — Advices from Havana bring the intelligence that the commission appointed by the National Board of Health of the United States for the purpose of studying yellow fever symptoms, development, and treatment, in Havana, is prosecuting its work there assiduously. Much local interest is manifested in the work, and hopes of beneficial results are entertained. During the week ending July 16th there were 117 deaths from yellow fever in Havana. The Commission consists of Dr. Chailié, of New Orleans; Dr. Gutierrez, of Philadelphia; Dr. Stumberg, of the Army; Dr. Tryon, of the Navy and Col. T. S. Hardee.

THE AMERICAN LARYNGOLOGICAL ASSOCIATION LIBRARY. — At its recent annual meeting, the American Laryngological Association determined to commence a Library, embracing books, monographs, and papers published in this special branch of medicine. It is the present design to establish the Library in the city of New York, and to place it at the service of all who have manifested an interest in the advancement of this specialty by contributions to its literature or other work. Books or pamphlets will be sent on application at the expense of the applicant. All contributions should be sent to the Librarian, Dr. F. H. Bosworth, 26 W. 46th Street, New York.

ANTI-VIVISECTION. — Prayer-meetings for the souls of the physiologists are being held in Edinburgh. Pamphlets are being actively circulated by the London Anti-Vivisection Society, and its agents are delivering lectures at various towns upon the terrible inhumanity of man.

BOOKS RECEIVED.

COMPLIMENTARY DINNER GIVEN TO PROFESSOR S. D. GROSS. By his medical friends, in Commemoration of his Fifty-first year in the profession. Philadelphia: Lindsay & Blakiston. 1879.

Original Lectures.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.

A LECTURE DELIVERED AT THE MANHATTAN EYE AND EAR HOSPITAL, IN THE CITY OF NEW YORK.

By O. D. POMEROY, M.D.

(Reported for THE MEDICAL RECORD.)

PART II.

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR—APPEARANCES UPON INSPECTION—GRANULATION TISSUE AND POLYPI—ICHOROUS DISCHARGE—MEATUS TOO SMALL—DEAD BONE—HEALING OF DRUM MEMBRANE—TREATMENT—CLEANLINESS—ASTRINGENTS—MODE OF APPLYING NITRATE OF SILVER—ALUM—ACETATE OF LEAD—CARBOLIC ACID—ARTIFICIAL DRUM MEMBRANE—INCISION OF THE EXTERNAL MEATUS—PROTECTION OF THE EAR—TREATMENT OF GRANULATIONS AND POLYPI—TREATMENT OF DEAD BONE—MASTOID COMPLICATIONS—CEREBRAL SYMPTOMS.

GENTLEMEN:—At the close of the last lecture we were studying the *appearances upon inspection* in a case of chronic suppuration of the middle ear. I had directed your attention to the character of the discharge, to the appearance of the drum membrane, and to a peculiar pulsation sometimes seen in that vicinity. To continue our study from that point, you may also observe *granulation tissue and polypi*. There seems to be a tolerably gradual progress from a swollen and hyperæmic membrane lining the tympanic cavity to a state of granulation tissue or polyp. The distinction I would make between granulations and polypi is simply one of size. Polypi may reach a size equal to the utmost capacity of the meatus externus, and extend outward so as to be visible at the concha. In such instances it will be seen that the polypus has lost its red color, and has become covered with a layer strongly resembling the epidermis of the skin. It is a kind of cutified mucous membrane. One word with reference to the diagnosis of polypi and granulations. We will suppose we have to deal with a polypus of moderate size. It will be seen as a red and usually rounded body, though it is sometimes nodulated. If we have to deal with what Toynbee calls the strawberry polypus, it will resemble in color and appearance the strawberry. When you see in the ear a rounded mass resembling a polypus, and are in doubt regarding its nature, pass a probe in and touch it, and if it moves considerably you may be satisfied that it is a polypus, and attached by a base somewhat narrower than the diameter of the growth. This manipulation must be done carefully, and, lest undue violence be done, it is well, perhaps, to wind the probe with a very small piece of cotton-wool.

Sometimes you will see an auditory canal that has been excoriated by an *ichorous discharge*. I have seen quite a deep groove running along the lower portion of the meatus caused in this manner.

The meatus is sometimes too large, in consequence of a chronic purulent process with ulceration and atrophy. When such a process extends the entire length of the auditory canal, the meatus externus may be twice the ordinary size. I have frequently observed this in children.

On the other hand, the *meatus* may be too small.

It was only the day before yesterday that we saw a patient here who had chronic otitis suppurativa, and near the middle of the canal was a narrowing which made the opening so small that it admitted the probe with only the smallest possible quantity of cotton wool wound upon it. In that case it was almost impossible to clean the canal.

Sometimes you will be able to see *dead bone*, but rather infrequently. You can, however, determine its presence by the use of the probe. The rough sensation imparted to it, and perhaps the mobility of a sequestrum, will indicate its presence. If the ear is properly cleansed, however, you will diagnose the presence of dead bone without much difficulty. I have reported a case in which the sequestrum involved almost the entire temporal bone, in which the patient recovered, with facial paralysis on the affected side, and, of course, absolute deafness.

HEALING OF DRUM MEMBRANE.

After the granulations or polypi have been removed and the discharge is partly or entirely arrested, healing of the drum membrane usually commences. The process is most interesting to inspect. I have often observed cases in which the changes could be noted for several years, and I have in a few instances been reasonably well satisfied that I have seen delicate bands of reparative material thrown across the perforation somewhat resembling a spider's web. Perhaps we need to exercise the imagination somewhat to make such an observation, but I am sure I have seen it. There is a case here now, perhaps some of you saw it yesterday. There was a perforation which had healed, and the evidence of this was as follows: the site of the inner border of the old drum membrane was indicated by the incurved portion. The new formation was at a somewhat deeper level, filling the gap made by the perforation, and was placed upon the mucous aspect of the drum membrane precisely as a patch is applied to the inner side of a break in a piece of cloth, the edges of the aperture being neatly turned in.

Frequently the perforate membrane will be so sunken that the edges of the perforation are in apposition with the promontory, and, in healing, may become firmly attached to it, thus closing the aperture, either with or without the throwing out of reparative material, and there is a condition produced very much like posterior synechia in the eye. In these cases you may find the drum cavity divided into two parts, and when an attempt is made to inflate the tympanum you can see movements of the anterior portion of the drum membrane opposite the Eustachian tube, while the posterior portion remains uninflated and uninflatable. Again, the membrane may move outwards in the periphery, but with the central adherent portion immovable.

We might naturally suppose, after the drum membrane had healed, that then the process was terminated; but that is not altogether true, and it is extremely interesting to watch these cases further. I have done this in some instances for several years, and have found that the drum membrane undergoes constant changes. These relate chiefly to the tendency in the cicatricial formation to take on continuous connective-tissue degenerations, approaching the condition of true fibrous tissue, and showing many elevations and depressions running in an irregularly radiate manner.

Treatment.—First and foremost in the treatment of this disease is *cleanliness*. Cleansing an ear properly comes almost under the head of a fine art. I very in-

frequently find those who are capable of cleansing an ear as well as it should be done. It is of the utmost importance that the cleansing should be perfect in order to make an exact diagnosis, and it is equally important as the first step in treatment. This is ordinarily done by means of a syringe, but I syringe ears as little as possible to keep them clean. I like to avoid the effect produced upon the drum-membrane by the current of warm water, and prefer to clean the ear by means of cotton-wool. The absorbent cotton furnishes us a most excellent means of removing the discharge; but if the quantity of discharge be great, the syringe must be resorted to. I would advise that the cleansing be done under sight, and that the manipulations should be as delicate and careful as possible. If you do not hurt the patient, it is pretty good evidence that you are not inflicting undue violence. When the ear has been properly cleansed, you may use *astringents*. Perhaps I have done as much as many others to introduce the use of nitrate of silver in the treatment of this disease. In this institution we have been in the habit, for a number of years, of dropping a few drops of a solution of nitrate of silver into the ears in purulent inflammation of the tympanum, with or without polypi and granulations, and certainly we have had better success with it than with any other plan of treatment.

THE MODE OF APPLYING NITRATE OF SILVER

is important. You may take from three to six drops and throw them into the ear with some little violence, draw the solution out, and then repeat the process several times, while the dropping-tube is still inserted in the ear. When that is done, you will find that the solution is stained by the discharge which has not been absolutely removed from the ear. By that means the application is made much more thoroughly than by any other method. [The dropping-tube we use at this hospital consists of a hard rubber catheter, with a soft rubber thimble upon its ring extremity.] If the application trickles down the Eustachian tube into the throat, there is no harm done; but, on the contrary, it may be beneficial. If the perforation in the drum-membrane is small, and it is evident that there is extensive purulent processes going on in the tympanum, and it is impossible to get the agent into the cavity, I should not hesitate to make an incision in the membrane, so that the medicament could be effectively introduced. Politzer's inflation may also be done to cleanse the cavity of the discharge.

The strength of the solution of nitrate of silver used is very important indeed. In this institution we use it of a strength varying from ten grains to the ounce to a saturated solution. Several years since I reported in the *New York Medical Journal* a case of this disease. The man was doing very well under the use of a strong solution of nitrate of silver, but the treatment seemed inadequate, and I finally used several drops of a 480-grain solution as previously described. It caused no pain, no discomfort, except a slight feeling of warmth, and the single application cured the patient [the membrane had a small perforation, with a little granulation attached to its border]. I may also say here that if there is evidence of purulent inflammation of the tympanic cavity without perforation, or with perforation too small to permit of the introduction of the solution into the cavity, a strong solution painted upon the drum-membrane will frequently arrest the purulent process. I commonly apply the nitrate of silver every second day. The solution should not be strong enough to cause pain.

Alum may be used either in powder or in saturated

solution. An objection to this remedy is, that it forms the so-called *alum curda*, which produce a similar effect to foreign bodies in the tympanic cavity.

There is an empirical element in the treatment of this disease. We do not always know certainly that any given remedy will agree with the patient, and may, therefore, be obliged to change from one to another. *Acetate of lead* is a valuable remedy, and may be used in solution varying from two to ten grains to the ounce of water. A few drops may be introduced into the ear several times a day. *Carbolic acid* is a popular remedy. It has fallen somewhat into disrepute, yet it is valuable, and it has the additional advantage of being disinfectant. It may be used of the strength of from two to four grains to the ounce of water. I have but little to say with reference to the use of washes in the ears to correct the odor of the discharge, for if the latter is arrested there will be little or no foetid smell. It would be comparatively useless to throw in a quantity of disinfectant fluid when there is present a quantity of decomposing and nasty discharge. First cleanse the ear, and then apply remedies which arrest the discharge, and you will have but little need of disinfectants. Besides the carbolic acid you may use the liq. sod. chlo., a drachm to the ounce of water several times daily as a disinfectant. *Sulphate of zinc* may be used of the same strength as the acetate of lead and in the same manner. If you have to deal with a case in which there is a relaxed condition of the lining membrane of the tympanum, it will be well to use absorbent cotton-wool and pack the cavity as full as possible. To do this well there should be little or no drum membrane left, and only a moderate amount of discharge. The cotton may remain in the ear from a few hours to several days, but should be removed whenever it feels uncomfortable.

An artificial drum-membrane is sometimes recommended to close the cavity and protect it from atmospheric changes. I have almost entirely discontinued its use for the reason that it acts like a foreign body, produces irritation, and excites discharge.

PROTECTION OF THE EAR.

I would recommend the patient to wear cotton in the ear constantly until he is cured. The cotton should be placed loosely in the ear and removed as often as it becomes in the least moist. We wish to avoid anything like maceration of the part, and desire to induce a state of dryness as far as possible. At the Foundling Asylum I observed that the meatus in a considerable number of cases was much too large, and in a certain other number so narrow that only a small probe could be passed in, so that a quantity of muco-pus was constantly retained.

On several occasions I incised the external meatus in a number of places in order to allow the discharge to have free exit.

TREATMENT OF GRANULATIONS OR POLYPI.

I am in the habit of treating granulations or polypi as follows: First, remove them. If the polypus is of considerable size you may remove it by a *Wilde's snare*.

But the snare is an extremely impracticable instrument, and I now rarely use it. It causes more pain than the forceps, and it will not succeed unless the polypus is of considerable size and quite pedunculated. I depend almost entirely upon *forceps* for removing these growths. For that purpose almost any variety of small forceps will answer. Small nasal forceps answer very well indeed.

The most artistic forceps are those devised by the

late Mr. Hinton, of London. But they are somewhat complicated, and expensive. I would avoid a *speculum*, if possible, in operating; but if the polypus is small you will be able to use a speculum to good advantage. I have devised a pair of mouse-toothed forceps that may be opened conveniently in a somewhat narrow speculum. It is a good instrument for removing extremely small granulations.

The moment you lacerate a polypus it will usually bleed excessively. You should therefore begin your operation by knowing where it is attached, and remove it with rapidity to avoid the hemorrhage that will embarrass your movements. If the drum membrane is pretty well swept away, you need have little fear of doing harm to the contents of the tympanum. To avoid the embarrassment of the hemorrhage you may drop in a solution of nitrate of silver, or the liquor ferri persulph.

The nitrate of silver renders the polyp more friable than before, and less slippery, causing it easier to be caught with the forceps, for these polypi are often as difficult to seize hold of as a jelly-fish would be.

After removing as much as possible of the polypus, you have to depend upon cauterization for the completion of the cure. I always begin with the *nitrate of silver*. For that purpose I employ the crystals, in saturated solution. My method is to take a fine probe, wind the tip with a piece of cotton, dip it in the solution, remove the excess by wiping on blotting-paper, and then apply it to every remaining portion of the polyp until it is completely whitened. If the nitrate of silver does not succeed very well, I then use the strongest *nitric acid*. This should be applied a little more carefully than the nitrate of silver, and in the same manner, for if the nitrate of silver touches adjacent parts it does but little harm, whereas the nitric acid may do much mischief. These agents failing, I use the acid nitrate of mercury. It has a similar effect to the others, but the reaction is often quite excessive. It is used in the same manner as the nitric acid, but is a remedy which must be used cautiously.

Burnt alum is sometimes of valuable assistance in removing granulations and bases of polypi. Of late *iodoform* has been used, and in some cases it does very well indeed. One objection to the remedy is its disagreeable odor.

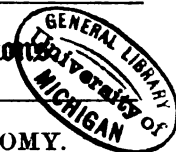
TREATMENT WITH REFERENCE TO DEAD BONE.

Any directions regarding removal of dead bone may seem superfluous, but I will simply say that if the sequestrum is of considerable size, is moderately loose, and can be removed with the forceps without much violence, you can remove it. In the case which I have already referred to, I made several attempts to remove the dead bone. Each attempt was followed by considerable hemorrhage. By the advice of my colleagues, I desisted from using further violence, and after a time it came away of its own accord. If you find a spot of dead bone, polypi are almost always present in its vicinity, and you can introduce a properly constructed gouge, and chip away the necrotic bone, or a dentist's drill may be used for this purpose. As a rule this is not necessary, for the sequestrum usually exfoliates by natural processes.

Mastoid complications frequently occur in this disease, and it may become necessary to trephine, or to cut down and gouge out dead bone.

To combat cerebral symptoms, frequently developing in this disease, the general indications are to prevent any accumulation of discharge in any of the cavities of the ear, including the mastoid cells.

Original Communications



REMARKS ON OVARIOTOMY.

VALUE OF EARLY RECTAL USE OF QUININE AND OPIUM
IN CONJUNCTION WITH FREE SUPPORTING DIET,
AS MEANS OF DEFENDING THE SYSTEM AGAINST
THE DANGERS OF THE OPERATION—ILLUSTRATED BY A SERIES OF SIX SUCCESSFUL CASES, THREE SINGLE
AND THREE DOUBLE.

By NATHAN BOZEMAN, M.D.,

SURGEON TO THE WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

PART III.

CASE V.—*Both Ovaries Involved—Left, Seat of a Multilocular Cyst with Pedicle Looped over Corresponding Round Ligament of Uterus, and Twisted upon Itself Seven Times—Never Tapped—But Slight Emaciation—The Value of Dulness on Percussion over One Loin as Diagnostic of the Location of the Tumor Illustrated—Tinct. of Iron and Quinine Used before the Operation—Double Ovariectomy with Antiseptic Precautions—Small Incision—Adhesions and Hemorrhage Unimportant—Both Pedicles Ligatured—No Drainage-Tube Used—Early and Continuous Support of the System by the Mouth and Rectum—Quinine with Opium Commenced, per Rectum, Two Hours after Operation—Peritonitis Violent—Resulting Fever High—Cinchonism at the End of Twenty-four Hours, with Control of the Pulse and Temperature—Speedy Recovery.*

MARY C., of Ulster County, N. Y., aged 22, unmarried, seemingly in strong and robust health, but slightly emaciated, was admitted to the Woman's Hospital January 9, 1879, with an abdominal tumor about the size of a man's head; girth of abdomen, thirty-five inches. In January, 1878, first noticed a diminution in the menstrual flow, and occasionally a deep pelvic pain, attended with more or less weariness upon walking or standing. About three months after this perceived, in the left iliac region, a small tumor, which could be easily pushed with the hand from side to side. Began now to have pains in the small of the back, the left hip, the left thigh, the left groin, and the left labium pudendi, which were always greatly increased just before and during the menstrual period, and after severe exercise. The examination of this tumor showed it to be of the left ovary, and probably of the polycystic variety. It rested mainly in the left iliac and lumbar regions, but could be readily pushed far over to the right side, especially its upper part. Owing to the great thickness of the abdominal walls, only a slight sense of fluctuation could be detected. In this particular it had very much the character of a solid tumor. The uterus measured two and a half inches, was anteflexed, and the fundus was drawn to the left side to almost a horizontal position. Percussion over the left loin elicited dulness. The tumor had not been tapped, nor was this deemed necessary at the time of the examination to complete the diagnosis. The great mobility of the tumor, its apparently long pedicle, and the freedom from extensive adhesions, fully justified, it was believed, an operative procedure.

In addition to the ordinary preparatory treatment of daily tepid baths with vaseline inunctions, regulation of the diet, and attention to the bowels, tincture

of iron, in fifteen-drop doses thrice daily, was ordered. Ten grains of quinine, given the morning before the operation, which was performed January 24th. At 2 P.M. the operation (antiseptic) was commenced by the small incision. The introduction, first of the flat abdominal searcher, and then of the hand, showed the way to be clear. Several cysts, one after another, within the tumor, were tapped, and the contained fluids found to be of different shades of color. In all, the fluid was thin, in one quite like water, and in another, the largest, dark grumous-looking. No adhesions of any account were found to exist, but when drawing the cyst through the wound, the pedicle was discovered to be twisted upon itself seven times, and looped around the corresponding round ligament of the uterus. In addition to the looping of the pedicle, the fold of the peritoneum containing the ovarian ligament was found to have been divided and cicatrized down to the latter, through constant friction or rubbing of the round ligament. In fact, the ovarian ligament was completely bare, and no doubt would itself have soon been divided by the same processes of traction and attrition. The twisted pedicle having been uncoiled, tied, and dropped in the usual way, attention was next directed to the condition of the other ovary. This was found the seat of commencing cystic degeneration, and was likewise removed in the manner described. There was considerable oozing of blood, which required long sponging. Afterward the wound was dressed antiseptically, as usual.

This specimen I presented to the New York Pathological Society, with an explanation of the probable mode by which the parts involved were brought into the rare and unique relationship above mentioned. (See reports of the Society, published in the issue of the New York MEDICAL RECORD, Vol. xv., No. 15.) Weight of tumor and contents not ascertained. Duration of the operation, fifty-nine minutes.

AFTER-TREATMENT.

Per orem: Nothing. Hypodermically, Magendie's sol., ℥x. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 iss. General condition: Slight nausea from the anæsthetic; urine to be drawn every six hours.

Evening: Pulse, 108; temp., 101½° F.

January 25th.—Morning: Pulse, 124; temp., 102½° F. Per orem: Milk porridge, 3 vi.; whiskey, 3 v. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., 3 ij.; mashed beef, 3 viij. General condition: Slept the greater part of the night, and a good deal to-day; complains of some pain; skin hot, but not dry; feels faint at times; urine dark-colored, though sufficiently free; vomited once; dreams in her sleep; no tympanites; *cinchonized* at the end of twenty-four hours.

Evening: Pulse, 140; temperature, 108½° F.

January 26th.—Morning: Pulse, 118; temp., 100° F. Per orem: Milk and lime-water, 3 iv.; beef-tea, 3 ij.; whiskey, 3 i. Per rectum: Sulph. quinine, grs. xxx.; liq. opii comp., 3 iss.; mashed beef, 3 iv. General condition: Slept only about an hour during the night, and but little more during the day; nausea and vomiting more or less all the time; throws up occasionally a dark brownish material; has but little pain or tympanites, but complains of a burning feeling inwardly; pulse full and strong; skin dry; headache; urine still dark-colored, but quantity sufficient; wants ale to drink.

Evening: Pulse, 112; temp., 101½° F.

January 27th.—Morning: Pulse, 110; temp., 100½° F. Per orem: Milk and lime-water, 3 iv.; whiskey, 3 i.; tinct. of ginger frequently. Per rectum: Sulph.

quinine, grs. xxxv.; liq. opii comp., 3 iiss.; mashed beef, 3 viij. General condition: Slept more during the night, but is restless and moans; much less nausea and vomiting; complains almost always of abdominal pain after vomiting; fluid thrown up greenish in color; menstruation appears; pulse fairly strong; skin still a little dry; urine drawn at regular intervals, which is still dark-colored, but not turbid; bowels moved; *tinnitus aurium* continues; tympanites very slight.

Evening: Pulse, 110; temp., 101½° F.

January 28th.—Morning: Pulse, 98; temp., 101½° F. Per orem: Milk and lime-water, 3 iv.; beef-tea, 3 ss.; whiskey, 3 ij.; tinct. ginger and bicarb. soda occasionally. Per rectum: Sulph. quinine, grs. xxxvij.; liq. opii comp., 3 ij.; mashed beef, 3 viij. General condition: Passed a comfortable night; slept a good deal; only slight nausea and vomiting; feels some distress in the epigastrium, but no pain; face flushed at times; pulse softer; skin soft and moist; urine clearer. Ordered mixture of citrates of potash and lithia every three or four hours. Menstruation continues.

Evening: Pulse, 100; temp., 101½° F.

January 29th.—Morning: Pulse, 94; temp., 100½° F. Per orem: Milk and lime-water, 3 xvi.; whiskey, 3 iij.; mixture of potash and lithia. Per rectum: Sulph. quinine, grs. xxii.; liq. opii comp., 3 ij.; mashed beef, 3 vi. General condition: Passed a comfortable night; vomited only once; no tympanites or pain; sleeps enough; pulse good; skin moist and pleasant; bloody uterine discharge continues; urine dark, but less turbid.

Evening: Pulse, 96; temp., 101½° F.

January 30th.—Morning: Pulse, 96; temp., 100½° F. Per orem: Milk and lime-water, 3 xx.; whiskey, 3 iij.; mixture of potash and lithia. Per rectum: Sulph. quinine, grs. xv.; liq. opii comp., 3 iiss.; mashed beef and pancreatine, 3 ij. General condition: Complains of nothing, and sleeps sufficiently; bloody uterine discharge less; urine clearer; dressings of wound found to be offensive; removed and sutures taken out; wound completely closed, except a small point at the lower angle. From this opening there had been a considerable bloody discharge, causing the offensive odor; but this was discovered to be from the line of incision, and not the peritoneal cavity. Adhesive strips and new carbolized dressings applied.

Evening: Pulse, 104; temp., 100½° F.

January 31st.—Morning: Pulse, 86; temp., 100½° F. Per orem: Milk and lime-water, grs. xx.; whiskey, 3 i; beef-tea, 3 ij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 ij. General condition: Vomited twice this morning, but is progressing well in every other particular; wound examined and dressing renewed; discharge only slight, and almost without odor.

Evening: Pulse, 100; temp., 100½° F.

After this nothing worthy of note occurred. The next day both the pulse and the temperature fell below 100, and only once or twice afterward reached this point. The quinine in five-grain doses, with the usual quantity of opium, was continued till the ninth day, and then discontinued entirely. During the week of active treatment 225 grains of quinine and 15 drachms of liq. opii comp., with one hypodermic, were taken, and the balance of the time 50 grains of the former and 3 drachms of the latter, making in all: quinine, 275 grains; and liq. opii, 18 drachms. Week's average of pulse, 105; of temp., 101°. Convalescence was uninterrupted.

CASE VI.—Multilocular Cyst of Left Ovary—Origin Associated with Persistent Fever and Ague—Never Tapped—Present Incomplete Procidencia Uteri and Persistent Headache—But little Emaciation—The Value of Dulness on Percussion over one Loin as Diagnostic of the side of the Tumor Confirmed—Iron, Salicin, and Quinine given before the Operation—Ovariectomy with Antiseptic Precautions—Small Incision—Adhesions Extensive—Hemorrhage Moderate—No Drainage-Tube—Pedicel Ligatured—Early and Continuous Nourishing Diet by the Mouth and Rectum—Quinine with Opium Commenced per Rectum one and a half Hours after the Operation—Peritonitis Mild—Cinchonism at the End of Forty-eight Hours—Pulse and Temperature for the Week almost Normal—Speedy Recovery.

Anna M., of this city, aged 23; German, unmarried; healthy looking; was admitted to the Woman's Hospital March 4, 1879, with an abdominal tumor and girth of thirty-nine inches. She stated that in the autumn of 1877 she contracted fever and ague, which continued to recur at intervals from that time until the following April (1878), and that associated with this there was "falling of the womb." She then noticed that the menstrual flow was becoming more and more scanty and light-colored. Soon after she began to have deep pelvic pains, and found it difficult to turn in bed or leave the recumbent posture. A month or two later she discovered that her abdomen was considerably enlarged. For this and her womb trouble she sought advice in one of our general hospitals. After leaving this institution and applying to my friend Dr. S. T. Hubbard, of this city, for further treatment, she was advised by him to consult me. Upon examination at the time of admission into my service, I found the tumor reaching considerably above the line of the umbilicus. It was more prominent upon the left than the right side, and indicated, by its uneven surface, that it was probably of a polycystic character. Flatness on percussion to the left of the lumbar spine, coupled with the indications mentioned, led me to conclude that probably the left ovary was the one involved. The uterus, three inches in depth, was found in a state of incomplete procidentia; that is, it lay across the perineum and projected beyond the vulva about one-half its length—certainly a very unusual complication of an ovarian cyst. The tendency of the latter usually is to drag the uterus after it, and not to push it out of the vagina. The tumor had never been tapped. The patient stated that she had had constant headache ever since the tumor showed itself.

Some five or six days before the operation the patient was put upon the use of tinct. of iron, 15 drops three times a day; but it was soon discovered by her that her headache was greatly increased by the medicine, and it was thereupon discontinued. Salicin, in fifteen-grain doses thrice daily, was substituted, and continued up to the night before the operation, when it was stopped, and ten grains of quinine ordered. The following morning ten grains of the latter, with one grain of opium, was again ordered. This, together with daily tepid baths, inunctions, and the clearing out of the bowels, constituted the course of preparatory treatment. Careful measurement of the abdomen now showed a diminution in the girth of one and a half inches, and a proportionable increase of the mobility of the tumor itself.

Operation, March 21st.—At 2 P.M. the operation, under carbolic spray, was commenced. Small Incision. Extensive adhesions of the tumor to the

omentum and abdominal walls. Only a small space, comparatively, to the right of the incision was found free, but nowhere were the adhesions very thick and resisting. The left ovary was found to be the seat of disease, and of the multilocular form, as diagnosed. It was made up of a large number of cysts, containing jelly-like material of different consistencies, and even fluid almost limpid. Only three or four of the largest needed to be tapped in order to enable me to draw the mass through the wound. After tying and dropping the pedicle as usual, the peritoneal cavity was thoroughly cleared of blood and debris, and then the wound united with waxed carbolized sutures and dressed antiseptically. No drainage-tube used. Weight of the tumor and contents, fourteen pounds. Duration of the operation, fifty-five minutes.

AFTER-TREATMENT.

Per orem: Nothing. Magendie's sol., hypodermically, ℥viij. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., 3 i.; mashed beef, 3 ij. General condition: About one hour and a half after the operation, took first portion of quinine and opium; has vomited twice from the anæsthetic; slept two hours; pulse good, and skin moist.

Evening: Pulse, 114; temp., 99° F.

March 22d.—Morning: Pulse, 92; temp., 99½° F. Per orem: Milk and lime-water, 3 v.; milk, 3 i.; milk porridge, 3 i.; Magendie's sol., hypodermically, ℥x. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., 3 ij.; mashed beef and pancreatine, 3 viij. General condition: Passed a good night; has not vomited since the effects of the anæsthetic passed off; some pain; drowsy, and sleeps quietly; pulse good; skin soft; urine normal; no tympanites.

Evening: Pulse, 100; temp., 100½° F.

March 23d.—Morning: Pulse, 98; temp., 99¼° F. Per orem: Milk and lime-water, 3 x.; milk porridge, 3 iv. Per rectum: Sulph. quinine, grs. lv.; liq. opii comp., 3 ij.; mashed beef and pancreatine, 3 vi. General condition: Complains of nothing, and sleeps nearly all the time; one portion of the beef emulsion rejected by the rectum; thoroughly cinchonized at the end of forty-eight hours.

Evening: Pulse, 76; temp., 99½° F.

March 24th.—Morning: Pulse, 80; temp., 98½° F. Per orem: Milk and lime-water, 3 ij.; milk porridge, 3 iv.; milk, 3 xij. Per rectum: Sulph. quinine, grs. xlv.; liq. opii comp., 3 ij.; mashed beef and pancreatine, 3 vij. General condition: Slept nearly all night; no febrile symptoms, except a little headache, and turbidness of the urine, but in every other particular the condition is entirely satisfactory; no tympanites.

Evening: Pulse, 86; temp., 101° F.

March 25th.—Morning: Pulse, 80; temp., 99¼° F. Per orem: Milk, 3 xxv.; milk porridge, 3 iij. Per rectum: Sulph. quinine, grs. xl.; liq. opii comp., 3 ij.; mashed beef and pancreatine, 3 xi. General condition: Passed a comfortable night, and is progressing as satisfactorily as could be wished; cinchonism continues.

Evening: Pulse, 86; temp., 100° F.

March 26th.—Morning: Pulse, 79; temp., 99½° F. Per orem: Milk, 3 xl.; milk porridge, 3 vi.; beef-tea, 3 v. Per rectum: Sulph. quinine, grs. xxv.; liq. opii comp., 3 ij.; mashed beef and pancreatine, 3 ix. General condition: A little restless in the fore part of the night, but, excepting this, there is no unfavorable indication to note; no tympanites.

Evening: Pulse, 74; temp., 98½° F.

March 27th.—Morning: Pulse, 74; temp., 98½° F.

Per orem: Milk, $\frac{3}{4}$ xxix.; milk porridge, $\frac{3}{4}$ xij.; beef-tea, $\frac{3}{4}$ iv. Per rectum: Sulph. quinine, grs. xx.; liq. opii comp., $\frac{3}{4}$ ij.; mashed beef and pancreatine, $\frac{3}{4}$ viij. General condition unchanged.

Evening: Pulse, 78; temp., $99\frac{1}{2}^{\circ}$ F.

March 28th.—Morning: Pulse, 78; temp., $98\frac{1}{2}^{\circ}$ F. Per orem: Milk, $\frac{3}{4}$ xl.; milk porridge, $\frac{3}{4}$ xxxij.; beef-tea, $\frac{3}{4}$ xiv. Per rectum: At 9 P.M. last night all medication and alimentation by this mode were suspended. General condition satisfactory in every particular; bowels moved once; sutures removed, and union of the wound found throughout, excepting one small superficial point; not a particle of pus in the tracts of the sutures; adhesive strips applied, with renewal of antiseptic dressings and compress.

Evening: Pulse, 78; temp., $98\frac{1}{2}^{\circ}$ F.

No further medication being found necessary, the treatment was reduced to simply watching the patient and attending to her diet. The quantity of quinine taken during the six days of active treatment was 245 grains, and of the liq. opii comp., 18 drachms, with two hypodermics of Magendie's sol. of morphia. Week's average of pulse, 92; of temp., $99\frac{1}{2}^{\circ}$. Recovery in the highest degree satisfactory. The procident uterus returned to a simple prolapsed condition, and called for a mechanical support.

Since the foregoing portion of this paper was in great part written I have performed two more ovariectomies in the Woman's Hospital, and from the very great interest attached to these cases I append their results,* believing that they largely contribute to the support of the views I have thus far endeavored to maintain. The first case recovered promptly without an untoward symptom; occurred in an unmarried woman, $\text{set. } 29$; first abdominal enlargement noticed about one year ago; anæmia and emaciation marked, and cyst unilocular and firmly adherent. The second case was cancerous, and complicated with ascites and exhaustion; the patient died sixty-one hours after the operation.

In the two appended cases nearly the same general course was pursued as set forth in the above series. In the first case, owing to the complications present, the operation was more protracted than in any one of the series, the time taken being one hour and a quarter; but if it be correct, as shown by the report of Dr. Welch on the character of the tumor, that the origin was ovarian and not uterine, as was supposed, then there is no unusual importance to be attached to this circumstance. In the second case, however, the operation and its result stand in a light totally different from any one of the series given, since the disease for which the operation was performed was of a carcinomatous nature, and if its diagnosis had been clearly made out, I should not have performed the operation. But the diagnosis failing to a certain extent, the operation was performed, and the question now is, what disposition shall be made of the result? As viewed from a statistical standpoint it must be counted, but as regards the practical value of the general plan of preparatory and after-treatment for the operation of ovariectomy intended to be prominently brought out by this paper, the result in the case cannot, strictly speaking, be considered of any account. To make the most of the case, however, under the circumstances, it is claimed that even the final result of the operation, bad as it was, does not invalidate in the slightest particular the correctness of the principles of practice above mentioned. The value of this was just as clearly and satis-

factorily demonstrated, up to within a few hours of the death of the patient, as it was in any one of the series presented. The failure recorded is not in the quinine and opium treatment in conjunction with nourishing diet, to prevent, to moderate, or to control high temperature, since this was actually accomplished by the treatment in a more or less marked degree; but in the existence of a malignant disease, for the cure of which the resources of our art have not yet provided an adequate remedy.

General Remarks.—An examination now of the histories of the series of six cases upon whom ovariectomy was performed shows the following: The age of the patients varied from 22 to 65, the average being 39 $\frac{1}{2}$ years. One was married without offspring, two were widows who had borne one and two children respectively, and three were unmarried. In four cases general anæmia and emaciation were marked, and in the other two these conditions were present, but less appreciable on account of the shorter duration of the disease. In five cases percussion over the loins materially aided in the establishment of the diagnosis of the ovary involved. In one case the method failed on account of the increased length of the pedicle and the peculiarity of the fixation of the tumor on the opposite side. In the first two cases no particular attention was paid to the preparation of the system for the operation, further than to use for a few days the warm bath followed by vaseline inunctions and to clear out the bowels the night before. In the other four cases there was more or less preparation; for example, nourishing and supporting diet was employed in one; the same and quinine in another; the same with tincture of iron and quinine in a third; and the same with salicin and quinine in the fourth. The time taken for the operations varied from twenty-seven to sixty-two minutes, the average being fifty-two minutes. In all the operations the antiseptic method of Mr. Lister was employed. The small incision was adopted in five, and the medium in one operation. In four cases the parietal, omental, and mesenteric adhesions were extensive, resisting, and difficult to overcome, but unimportant in the remaining two. In three cases both ovaries were found diseased and were removed. In one case an ovary had passed around one of the round ligaments of the uterus and was followed by several coils of the pedicle. In all the cases the pedicle was transfixed with a double waxed carbolized silk ligature, then tied right and left, cut and dropped. No drainage tube was used in any case, and in only one was a tent left in the lower angle of the wound. In five cases the abdominal wound was closed with waxed carbolized silk sutures made to include the peritoneum. Through mistake the abdominal wound, in one case, was closed with plain silk sutures, and although no harm followed further than suppuration in their tracks, they are not to be recommended. In three cases the resulting peritonitis was violent, in one moderate, and in the remaining two mild. In one of the first two cases there were evidences of inflammatory products in the peritoneal cavity, but with no other result than protracted recovery (this was the Case in which cold water affusions over the abdomen were employed for forty-four hours); and in the other there was suppuration and discharge of pus through the wound on the ninth day, which resulted, as a matter of course, in protracted recovery. In the remaining four cases the recoveries were all prompt. In all six cases the average of the pulse for the week of active treatment was 98; that of the temperature for the same time, 100° F. In five cases free nourishment both by the mouth and rectum was em-

* The complete histories will appear in the reprints.

ployed, and in one by the mouth alone. In four cases nourishment by the rectum was commenced during the first day, and in two, by the mouth. In all six cases quinine and opium were given in combination, and invariably by the rectum. The quantity of the former given per day varied from 18 to 40 grains, the average being $26\frac{1}{2}$ grains, and that of the latter (liq. opii comp.) for the same period, from $1\frac{1}{4}$ to $2\frac{1}{2}$ drachms, the average being $1\frac{1}{2}$ drachms. In two cases the remedies were commenced one hour after the operation, in one two hours, in one eighteen hours, in one thirty hours, and in one (the first of all) seventy-two hours; the changes in time, for the most part in the series, being in the inversed order here given. In four cases decided cinchonism was produced, and in two, if present at all, it was so slight as not to be perceived by the patient.

Of the eight results recorded, seven were complete cures, giving a mortality of $12\frac{1}{2}$ per cent.— $7\frac{1}{2}$ per cent. less than the average mortality attributed in the outset of these remarks to the practice of all operators. Again, counting the number of diseased ovaries removed, eleven, with only one failure by death,—which is a legitimate mode of presenting the subject—and the comparison is placed in a still better light. The failures would then stand at 9 per cent.

These eight cases, with one (successful) previously reported in this journal (Sept. 1, 1866), comprise my entire experience in the operation of ovariectomy, and altogether show a death-rate of 11.11 per cent. Prof. Nussbaum has said that if a surgeon could commence his career as an ovariectomist with the experience of twenty operations, he might expect in the course of time to record a respectable average of success. If the results here recorded teach anything, it is that a mere tyro may do this as well as the self-constituted ovariectomist with his twenty embodied experiences, if he will take the trouble to make himself familiar with the principles of the operation, and is patient and painstaking in all its requirements and details.

I think I have proven by my experience thus far that Prof. Nussbaum is in error, and that it is even possible for an ovariectomist to commence with a respectable average of success, if, as stated, he will only take the pains and trouble to do his work well, and above all, to bear in mind the time-honored maxim, credited to Sir Astley Cooper, "An operation done well, is done soon enough."

I know of no operator in this country who has cured eight out of nine of his first cases—88.89 per cent., the entire mortality being due to cancer; nor do I believe the records of the profession in Europe afford another example of an operator having secured in his first cases eight consecutive successes—100 per cent.

There are many eminent ovariectomists both at home and abroad who have had far greater success in a larger number of cases. To this fact I have already alluded. But their great success was not obtained at the beginning, nor can its superiority be used as an argument against a method which, so far as it has been tried, has yielded results quite as favorable, viewed from a scientific standpoint.

In conclusion, I wish to express my great obligations to my assistants, Drs. J. E. Janvrin and Henry Goldthwaite, for their full co-operation in carrying out the details of these operations. I am also under personal obligations to the house-surgeons, Drs. J. G. Perry, F. H. Hoadley, and Geo. E. Munroe, who deserve great credit for the patient faithfulness with which they watched these cases, and for the general accuracy of their observations and records of the after-treatment and its effects.

THE TREATMENT OF URETHRAL STRICTURE BY "SLOW DIVULSION."

By GEORGE M. SCHWEIG, M.D.,

NEW YORK.

WHEN I published a description of a new dilator (MEDICAL RECORD, No. 443), I had under treatment quite a number of cases of stricture, while others, with whom active treatment had been suspended, were under observation. In support of what I then claimed for the new instrument, I am now in position to furnish ample clinical proof, in the shape of a number of cases from private practice, but all accessible. While I will be first to admit that in none of the cases has the period of observation been as yet sufficient with certainty to predicate permanence of results, still I do not feel justified in withholding from the profession, for an indefinite time, facts the general knowledge of which I believe will prove conducive to the welfare of a large class of sufferers. When the gravity of the disease and the insidious development of incurable sequelæ are considered, I cannot but believe that the profession will gladly welcome a method of radical cure that is safer and less heroic than any other, and at least equally reliable.

Thus far my therapeutic results compare very favorably with those claimed for any other method, or a like method with other instruments. In judging of final results, I think some weight should be accorded also to the manner of obtaining them. If, therefore, equally good results can be arrived at by various methods, in one of which pain, danger, and liability to accidents are reduced to a minimum, while the history of the others bristles with instances of more or less serious hemorrhages, shock, urethral fever, urinary infiltration, and deaths, the preference is obvious. I have used my instrument now between seventy and eighty times, often dilating to 40 and 48 Fr., with not a single one of the accidents that are so common with urethrotomy as well as over-distention by other instruments. In no instance was there any reaction that amounted to anything, the average reaction being in fact far less than that attending the use of the ordinary sound or bougie. Not one of the patients was even for an hour prevented from pursuing his ordinary avocations. The mildness and safety of the treatment, therefore, leave nothing to be desired. For the few aphoristic remarks relative to the procedure contained in the paper above referred to, I propose now to substitute a somewhat more extended elucidation.

The term "Slow Divulsion," which I have chosen to designate the method, explains itself. Yet it is, from an anatomical standpoint, not always correct. By divulsion is meant rupture of a stricture. This is ordinarily obtained by rapid and forcible over-distention to a degree sufficient to accomplish the object, and is by no means a mild proceeding. It will be readily conceded, however, that if a stricture can be distended to a sufficient degree to destroy its resiliency—even though the process stop short of actual divulsion, all that is therapeutically requisite will have been accomplished. The object is to widen the urethra at a certain point or points, and prevent its recontraction, and if this can be accomplished by the over-distention of fibres without their actual rupture, it is equally well. In such instances, then, the term divulsion would be inaccurate. Wishing, however, to avoid a complex term, I have chosen for my method the above designation, as more nearly answering for the majority of cases than any other

that occurred to me. For the *modus operandi*, I refer the reader to the article previously mentioned.

Leaving aside impermeable strictures, for which by necessity either external or retrograde internal urethrotomy must precede all other measures, my experience has led me to consider urethral stricture a very simple matter, and easily disposed of. The chief difficulties that have heretofore presented themselves in its treatment were, 1, resiliency, and 2, the usual disproportion between the meatus and the other portions of the urethral canal. The latter of these difficulties has of late years been surmounted at the hands of some surgeons by enlarging (cutting) the meatus, at the cost frequently, however, of not only a disfigurement, but a serious disturbance of the urinary function. Both difficulties are obviated by my instrument, which possesses so great a percentage of distending power, that its employment makes it unnecessary to cut any but an abnormally small meatus (*vide* description of instrument).

In dealing with urethral stricture I have altogether abandoned after-treatment. The continued use of sounds for an indefinite period after other radical cures, so-called, I have found entirely unnecessary; and it is reasonable that it should be so. The sole object of its practice is to prevent recontraction. And if we go farther, and inquire into the nature and causes of this dreaded recontraction, we find it is twofold, viz.: First, that due to resiliency; second, the cicatricial contractions that follow both urethrotomy and divulsion with unsuitable instruments—where tissues are lacerated. If my method—as I claim—destroys resiliency without producing traumatism, it is obvious that neither of these two causes can obtain. I consider this dispensing with after-treatment a very important factor, because, instead of spinning it out to an indefinite period, it reduces the treatment of stricture to a few days or weeks. I have thus far asked my patients to call on me at first once a month, and then every three or six months, for a time, in order simply to pass a bulbous sound. Of the cases discharged as cured, I have as yet to record a first relapse.

It is a well-known fact that a large number of men, well up in years, suffer tortures from incurable affections of the bladder, kidneys, prostate, etc., referable to long-existing stricture. To reduce these cases to a minimum by curing stricture in its early stages is therefore a great desideratum. Now, there is a circumstance, very ridiculous from a scientific, but very formidable from a practical standpoint, that stands in the way of curing stricture more frequently than one would imagine. As every physician knows, most people stand in great dread of being cut; and where the necessity of this is insisted on as a means of radical cure, a large percentage prefer the disease to the remedy.

I have thought it unnecessary to ask the reader to wade with me through the dry details of cases, deeming it equally sufficient to epitomize these in the shape of results. I will add my earnest hope that both the method and the instrument (and I consider them inseparable) will receive an extensive trial at the hands of the profession, and I have no fear as to the results or the verdict.

496 LEXINGTON AVENUE.

RELIEF OF ITCHING.—Pilocarpine has been used with success for the relief of itching in jaundiced patients. One-third of a grain is given hypodermically every night.—*Brit. Med. Journ.*

Reports of Hospitals.

PENNSYLVANIA HOSPITAL.

A SURGICAL CASE OF UNUSUAL INTEREST.

A MAN of forty was admitted to the Pennsylvania Hospital, Philadelphia, on the 27th of April last, in the following extraordinary condition. There was a lacerated wound on the top of his head, three inches long by an inch and a half wide, and very deep. The integument had sloughed or been torn away, the bones were missing, the dura mater was exposed and sloughing, and the brain could be seen pulsating at the bottom of the foul mass. Strange to relate, the patient was perfectly rational, and gave the following remarkable account of himself: He was first officer in a three-masted schooner sailing from the West Indies to New York with a cargo of sugar. He had worked very hard at loading the vessel in the heat, and for two days and nights after sailing for home he was constantly on the watch. He suddenly became ill, and conceived the idea that the captain and crew were going to murder him and throw him overboard. To frustrate them he thought he would take his own life, and tried to jump overboard, but was prevented from doing so. On the fourth day out, when off Cape Hatteras, he got possession of an axe, and dealt himself several blows on the top of his head with the handle, fracturing his skull. He then, with the sharp edge of the axe, chopped out the softened mass, and picked away pieces of the bone. After this his head (mind) got better, he said. On the 25th of April, four days after inflicting the injury, the vessel arrived at New York. The patient walked to the cars and came to Philadelphia. He said that he was a temperate man; that he only took an occasional drink, and that he was not intoxicated when he injured himself. His appearance certainly did not indicate a man of intemperate habits. His story was so unlikely that it was, of course, doubted; but no cross-examination could elicit any contradictory statements, and he persisted in it to the last, bringing no accusation against any one—in fact, volunteering the declaration that the captain and crew were the best he had ever sailed with.

The patient remained in the hospital until May 31st, when he died. All pressure had been removed early in the treatment of the case, except where, as it was found, some pieces of bone had been driven down and buried under the sound part of the skull, and these did not produce any immediate paralysis. It was not until the thirteenth day after the injury that the man's left side became powerless. The pressure exerted by these pieces of bone was upon the anterior lobes. The case was regarded by the attending surgeon, Dr. William Hunt, as a fine illustration of the tolerance of these lobes. Both motion and sensation returned when the bones were removed, but the injury was too profound for the amelioration to continue.

The post-mortem examination proved the truth of the man's story. The calvaria showed twenty-five or more superficial slits and scratches, running parallel with the opening, which were exactly those that the edge of a sharp axe would have made. No murderer or set of murderers would have made such marks as these, and inflicted them all in one direction.

Progress of Medical Science.

ANATOMY OF TETANUS.—Within the last few years many observers have noted changes in the upper part of the spinal cord, the medulla, and the pons in cases of tetanus. In a case occurring in the New York Hospital, Dr. Amidon had an opportunity of verifying these observations, and he has endeavored to trace the origin of each set of symptoms to some central lesion. The inflamed pia mater surrounding the cord and including the anterior, posterior, and spinal accessory nerve-roots, explained the pain and stiffness in the back of the neck, as is shown by the existence of these symptoms in simple cervical spinal meningitis. On the vascular and cavernous lesions in the whole spinal accessory tract, and the inflamed pia mater about the spinal accessory roots, depended the dysphagia, spasm of the sterno-mastoid and trapezius, and spasm of the glottis, the excited state of the hypoglossal contributing to the production of the dysphagia. The lesions of the lower facial nucleus, considered by some as the centre for the muscles of the mouth, the only facial muscles implicated, gave rise to the "*risus sardonius*." The lesions found in the pons, by their action on the origin of the fifth pair, are outwardly manifested by the trismus, the constant, and hitherto unexplained symptom of tetanus. The lesions consisted principally of vascular and perivascular dilatations, and changes in the nervous substance itself, varying from simple vascular engorgement to areas of disintegration and the formation of vacuoles; they were found in the tracts occupied by the trigeminus, part of the facial, spinal accessory and hypoglossal, while slight departures from the normal structure appeared in the glossopharyngeal and pneumogastric tracts.—*Archives of Medicine*, June, 1879.

INCOMPLETE RETENTION OF URINE.—Dr. Alfred Jean, whose paper on this subject took the Civiale prize in 1878, gives the following *résumé* of his work in the *Gazette des Hôpitaux*, May 6, 1879:

Incomplete retention of urine should not be regarded as an exclusively local affection. It may, perhaps, for a long time involve only the organs concerned in the secretion and excretion of urine, but these are the exceptional cases. Sometimes the attention of the patient is directed to the digestive apparatus, disturbances of which may be the initial symptom; but, whatever may be the beginning of the affection, always, or almost always the greater part of the economy becomes involved. The most important vesical lesion is the general hypertrophy of the bladder walls, affecting the muscular elements of the different coats as well as the interstitial tissue. Prostatic obstruction acts principally on the circular and plexiform layers of the vesical walls, giving rise most frequently to horizontal bands, while urethral obstruction affects the external longitudinal layer. These changes are due to inflammatory processes. Subsequently the hypertrophied muscular fibres become constricted and paralyzed by a new formation of connective tissue, and imperfect contractions of the bladder result. The hypertrophic cystitis is followed by a true interstitial cystitis. In the kidneys are found interstitial and suppurative nephritis (surgical kidney). The principal symptoms are frequent and painful micturition, stagnation of urine, incontinence, polyuria, digestive troubles, fever, sometimes continuous, sometimes intermittent. Then follows uræmic

poisoning and the cachexia. The prognosis is always very grave, except in cases of stricture.

CATARACT FOLLOWING TYPHOID FEVER.—As the etiology of cataract occurring in young adults is involved in considerable obscurity, the following observation of M. Trélat may prove interesting. He operated successfully for double cataract, on a robust peasant girl, twenty-five years of age. The most careful examination revealed none of the causes which are usually considered as originators of this evil. The age of the patient could not account for it; there was no interference with general nutrition; the urine contained neither albumen nor sugar, nor an excess of phosphates. Four years previously a sister of the patient, then about twenty-four years of age, was treated by M. Trélat for the same affection, and a similar want of ascertainable cause led him to examine the two cases together for some common cause. It was then found that in both cases, about three months before the commencing dimness of sight was first noticed, there had been an attack of typhoid fever, and this, M. Trélat thinks, was the curious cause of the cataract, the changes in the lens being analogous to those induced in the muscular tissue.—*Gazette des Hôpitaux*.

CHEST MENSURATION IN PHTHISIS.—The following are the conclusions arrived at by Dr. Porter, after several years' attention to this subject:

1st. In the normal chest the movements of the two sides are practically equal. This is especially true of the infraclavicular region, where the lungs are more nearly symmetrical, and the movements of the chest less affected by irregular muscular development. 2d. The relative expansion of the lungs is interfered with early in phthisis, by the loss of pulmonary elasticity, and the choking of the alveoli and bronchi. 3d. In phthisis, the antero-posterior diameter in the infraclavicular region after forced inspiration is greater on the healthy than on the affected side. Conversely, after a forced expiration, the diameter of the affected side is greater than that of the healthy side. 4th. Age, sex, and habit of life may modify the amount of chest-expansion, but only disease or deformity can make any marked difference in the movement of the two sides. 5th. Disease may be suspected when the difference in the expansion of the two sides is very small. This irregularity cannot be determined with sufficient accuracy by the eye, or even by the tape-measure, but a pair of calipers, with a graduated scale, are necessary.—*St. Louis Medical and Surgical Journal*.

TYPHOID FEVER.—Dr. Thorne Thorne's report to the Local Government Board on the extensive epidemic of enteric fever, which lately occurred in and near the towns of Caterham and Redhill, is of special interest in its bearings upon the question of the spread of the disease through drinking-water. All the houses invaded, with but few exceptions, were supplied by the Caterham Waterworks Co., and in the exceptional cases it was found that the patients were in the habit of using the company's water. The supply was derived from chalk wells over 500 feet deep, and no possible source of contamination could at first be discovered. In the course of construction of some work, however, the company had employed men in one of the wells, at a depth of 455 feet from the surface, and it was ascertained that one of them, who left work some time in January, was believed to have been ill. After considerable difficulty the man was found, and Dr. Thorne was led to believe that he had been suf-

fering from a mild attack of typhoid fever at the time of his employment in the well. At that time the diarrhoea was very bad, and he was obliged to use the buckets, in which brick, mortar, etc., were lowered, and débris raised, to such an extent as to cause loud complaints from the men stationed at the top of the shaft. He stoutly denied having ever been so pressed as to have been compelled to relieve himself without the use of the bucket, but while above ground he was scarcely able to contain himself while running for the closet, and it is but reasonable to suppose that during his work in the well the water became contaminated. This state of affairs continued from Jan. 5th to Jan. 20th, when he was obliged to take to his bed. During his sickness he had not had medical attendance, owing to his poor circumstances, but the history of the case rendered the diagnosis reasonably certain. He had spent Dec. 25th and 26th at Croyden, where he probably contracted the disease. These dates correspond very accurately with this theory of infection: on Dec. 25th and 26th he was exposed to the poison at Croyden, and on Jan. 5th was taken ill; from Jan. 5th to Jan. 20th the water was poisoned, and from Jan. 19th to Feb. 30th an epidemic appeared in Caterham and Redhill, limited by the supply of the infected water. The village of Warringham, however, was also supplied by this company, but escaped the epidemic. To explain this it was found that during almost the entire period of poisoning, the company had been obliged to draw a supplemental supply of water from another source, which was pumped into the farther end of the Warringham main, and it is extremely doubtful whether this village received a drop of the product of the Caterham wells during this period. This is rendered more probable by the fact that, owing to the freezing of the service-pipes, the consumption of the company's water in Warringham, during this fortnight, was at its minimum. The following suggestions, which Dr. Thorne laid before the Conference on National Water-supply, as combining the principal lessons to be learnt from this epidemic, were embodied in a resolution which received the unanimous support of the Conference:

"1. That the view, to the effect that even a comparatively minute quantity of the poison contained in the evacuations of enteric fever patients, may, when subjected to favorable conditions for the development of that poison, lead to the specific infection of very large volumes of water to which it has gained access, is fully borne out.

"2. That a special danger attaches to the mild—or as they have been termed 'perambulatory'—cases of enteric fever, by reason of the intensely poisonous nature of the diarrhoea which characterizes that disease.

"And, having regard to these facts:

"3. That all possible sources of excremental contamination, in the vicinity of water-sources, should be rigidly dealt with.

"4. "That care should be taken, in connection with works for the conduction or storage of water, to exclude from employment all persons suffering from any diarrhoeal affection."—*The Practitioner*, June.

LYMPHATICS OF MUSCLES.—M. and Mme. Hoggan, in an article on the lymphatics of muscles, contend that lymphatic *culs-de-sac* without valves are found. There is a peculiar arrangement in the diaphragm, the origins of the *culs de-sac* being found on the peritoneal surface, while the pleural surface presents true lymphatic vessels, which have passed through the thickness of the muscle.—*Le Progrès Médical*, June 7th.

PASSIVE MOTION AFTER DISEASE OF JOINTS.—The movements of a joint after disease may be of two kinds, artificial or mechanical—made by means of various manœuvres and apparatus, or the natural or physiological movements produced by means of the muscles. The first are admissible when used to rectify malpositions of the limbs, and to treat confirmed ankylosis; but they should be rejected as useless or dangerous when proposed to prevent ankylosis. The second, on the contrary, are of great utility when employed at the proper time, restoring in a remarkable manner mobilization of the joints. Artificial immobilization at one time, natural mobilization at another, are the two principal therapeutic agents in the treatment of diseases of joints; one combats the anatomical lesions, the other restores physiological action. The first can be aided by topical, pharmaceutical, and hygienic agents; the second is favored by electrization of the muscles during the first stage, to prevent their degeneration. The best way to prevent ankylosis is to control inflammation. The only surgical means, strictly speaking, are continuous extension and, in extreme cases, resection.—*M. Verneuil, Le Progrès Médical*, June 7th.

KAVA-KAVA AND ITS BLENNOSTATIC PROPERTIES.—In a recent thesis on this subject, Dr. Dupuy states that the Kava plant contains a resin, which seems to constitute its essential therapeutic principle. The following are his conclusions concerning its medicinal properties:

1. Kava-Kava is a sialagogue.

2. Its action on the stomach is that of a bitter tonic; it improves the appetite without producing either diarrhoea or constipation, and perhaps acts as a prophylactic to catarrhal affections of the upper part of the digestive canal. Its taste is agreeable.

3. It exerts a special stimulating effect on the central nervous system; this stimulation differs essentially from alcoholic intoxication, and is called by Dr. Dupuy, *kavaic stimulation*.

4. It is not a sudorific.

5. It increases very markedly the excretion of water in the urine, and may be classed among the most efficacious of diuretics.

6. It does not produce priapism, as has been stated, but, on the contrary, it prevents it.

7. It is endowed with remarkable blennostatic properties, which manifest themselves very promptly. A chronic urethral discharge is first rendered more profuse, and is then promptly cured.

8. It is very efficacious in cases of acute urethritis or vaginitis, calming the inflammatory condition, controlling the pain during micturition, and suppressing the muco-purulent discharge from the urethro-vesical mucous membrane.

These results are probably due to the combined diuretic and blennostatic actions of the drug.

The anti-catarrhal action seems to be due to the resin, and the diuretic effects to a neutral, crystallizable principle called kavaine, and perhaps also to an alkaloid not yet discovered, whose presence would explain more satisfactorily the phenomena excited in the central nervous system, as well as the alterations in the circulation and secretions of the uro-genital apparatus. It possesses over other blennostatic agents, according to Dr. Dupuy, marked advantages, inasmuch as it produces neither diarrhoea nor constipation, is taken with pleasure, increases the appetite, relieves or controls entirely the pain during micturition, changes completely the nature of the discharge, and produces a cure in a very short space of time—ten days.—*La Tribune Médicale*, April 13th.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 2, 1879.

THE CAUSES OF DISEASE.

At present it must be confessed that the profession, although apparently satisfied as to the causation of the common diseases, are really much in doubt concerning the general subject. It is fashionable to ascribe to certain influences and conditions certain results. Theoretically, the connection can very readily, if not satisfactorily, be made out. For instance, the fashionable germ theory comes in to help us on almost all occasions; and by a certain habit of thinking into which we have drifted, and by yielding not a little to our imaginations, we mentally construct a superstructure which seems to explain everything. It is certainly very convenient to think we see what we cannot see, especially when we believe it necessary to account for what would otherwise be inexplicable. Plausible theories are always fascinating, and are, as a rule, generally accepted. In reality, however, few are based upon proper experience, thorough study, or indisputable facts. But this is the case the world over. The history of medicine is full of explanations of the causes of disease. Indeed, the profession has seemed to be as much interested in the various questions of etiology as in those of therapeutics. No one need be told that opinions concerning questions have been, and are still destined to change. Judging the future by the past, we are likely to be as much ridiculed in the next century for our blind belief in the power of unseen germs, as our forefathers were for their faith in the influence of spirits, of certain planets, and the like, in inducing certain maladies. It would seem almost like heresy to accepted doctrines to say that the germ theory does not explain everything, and that even the obnoxious sewer-gas may be innocent of the many grave charges which are constantly made against it. Still, we are willing to take the risks which such a position assumes. We are so apt to find, in a case of typhoid fever, that the well-water has been contam-

inated, that we are willing to look no farther. Even if such an apparent relation between cause and effect cannot be made out, we assume its existence by believing that the recognized cause is present, but that we are unable to discover it. This is very convenient reasoning, but very fallacious nevertheless. Contrariwise, how many cases of typhoid fever are known to occur in which the water has been perfectly pure, and in which all the usual sanitary conditions have been observed?

On the other hand, sewer-gas comes in as the father of almost all diseases. If a case of diphtheria occurs in a house, the sewer-pipe is looked after; if no leakage is discovered, the traps are declared to be imperfect, and the plumber rolls his eyes in thankfulness at being called thus early to save a family from certain destruction. Sewer-gas is pernicious, and too much care cannot be taken to exclude it from our dwellings; but when we consider that such a thing is impossible in a vast majority of instances, we naturally ask the question, why is not diphtheria more prevalent? We must admit that contaminated well-water is bad, that in certain persons, at least, it provokes grave, if not dangerous symptoms, but in the face of numerous facts, we are warranted in saying that such water is not the *sine qua non* in the study of the etiology of typhoid, of summer diarrhoea, or of cholera. The same may be said for sewer-gas. There is no doubt that it intensifies many diseases and modifies their course, but we are still unwilling to believe that it is an ever-present factor in the estimation of the etiology of diphtheria or any of the numerous diseases which are named in the same category.

The recent investigations which have been made concerning the causation of yellow fever also strongly militate against the germ theory, and many observers are convinced that the disease depends upon a specific poison of animal origin, like small-pox, measles, and scarlatina. We throw out these observations as straws which show the direction of the wind. The indications appear to us to be, that the germ theory is losing ground with advanced professional thinkers, that the necessity for studying the causes of disease anew is being forced upon our teachers, and that the time is not far distant when we shall cease to pin our faith so exclusively upon the power of floating germs, the far-reaching influence of bad well-water, and the omnipotent subtleness of sewer-gas.

THE ACTION OF ANÆSTHETICS.

THE third report on the action of anæsthetics to the Scientific Grants Committee of the British Medical Association has been made. The report embraces the results of investigating the condition of the blood-pressure in animals under the influence of chloroform, ethidine, and ether. The committee refer to a report of a committee of the Royal Medical and Chirurgical

Society (see *Trans.* for 1874, vol. *xlvi.*) to inquire into the uses and effects of chloroform, in which there is a brief, but very excellent record of the blood-pressure under chloroform and ether. That committee noticed that, on administering chloroform, there was at first a transient rise of the blood-pressure, followed by a gradual, but not a regular fall. It was also noticed that, when chloroform had reduced the force of the heart to the full extent, a rise of the mercury at once followed the respiration of fresh air.

With regard to ether, it was found that the primary rise was greater and more constant than with chloroform, and that the depressing effect was very slight or altogether absent.

By the experiments performed by the committee that has just reported, the above results have been amplified and more exact records obtained. The experiments were made upon rabbits and dogs. They make the general statement that on rabbits ether seemed to have no effect on blood-pressure, while ethidine reduced it to a considerable extent, but not to total extinction, like chloroform. The experiments seem to have been made with great care, and the facts obtained from the observations warranted the committee in reaching the following conclusions:

Ether, when administered to animals, has no appreciable effect in reducing blood-pressure; chloroform and ethidine have a decided effect in that direction.

Chloroform has sometimes an unexpected and apparently capricious effect on the heart's action. The occurrence of these sudden and unlooked-for effects are a source of serious danger, because the blood-pressure is with great rapidity reduced to almost zero, while the pulsations are greatly retarded, or even stopped.

The reduction of blood-pressure by ethidine is not, so far as has been observed, by sudden and unexpected depressions.

Chloroform may cause death by primarily paralyzing either the heart or the respiration. Although not free from danger on the side of the heart and the respiration, ethidine is, in a very high degree, safer than chloroform, inasmuch as the former does not compromise the heart as does the latter.

A legitimate deduction from the facts given is that ether is by far the safest of the three anesthetics used, and that ethidine is much safer than chloroform, and equally efficient.

A MUSEUM OF HYGIENE.

THE Parkes Museum of Hygiene was opened in London on June 28th, with good prospect of becoming a useful and interesting institution. It is designed to be a centre of instruction for the public, and is officered by men of such high reputation in sanitary science as to insure a prospect of its accomplishing the object it proposes. It is intended to in-

clude in its collections everything, from literature to machinery, which may be of sanitary value, or incite to sanitary study.

We hope that the success of this institution may lead to the establishment of a similar one with us. There are few cities the population of which has a greater need than ours to be thoroughly acquainted with the ways of preventing disease. A museum which would be a centre for the diffusion of such knowledge, and which, by its existence and the display of its collections, would call attention to the progress that is made in it, could not fail to benefit the city. We are now constantly exposed to infection from without, and the development of disease from within. It appears that we cannot have our streets kept clean, nor can we pull down the wretchedly built tenement-houses that inclose them. It is possible, however, to diffuse more widely the fact of the danger of living beside a garbage-heap, of being fanned by the exhalations from a sewer, and of being personally or domestically unclean. Besides, sanitary science has now reached such maturity in knowledge, such richness in literature, and can show such ingenuity and skill in its mechanical and architectural devices, that it deserves a place where it may record its work and display its successes.

Museums of all kinds seem to find ready support and appreciation among our citizens. We recall the fact that the fossil tracks of the Thick-Toed Birds are elegantly displayed, and not infrequently gazed upon in Central Park, and that the Two-Headed Nightingale warbles to large audiences in the Bowery. There are, in addition, plenty of places where our moral or aesthetic sense may be feelingly appealed to, and we ask, why not create a museum whose prosperity would indicate something more than love of pure science, a fine artistic taste, or a morbid fondness for freaks of Nature?

VOLUNTEER SURGEONS TO HAVANA UNDER AUTHORITY OF THE NATIONAL BOARD OF HEALTH.

ADVICES from Washington, bearing date July 26, 1879, bring the intelligence that Surgeons Walter K. Schofield and Thomas Hiland, of the U. S. Navy, have volunteered for duty under the National Board of Health on yellow fever service; that their services have been accepted; and that they have been ordered respectively to duty at the Consulates at Matanzas and Havana, Cuba, where they will act as inspectors on vessels leaving for the United States.

The appointment of these officers will materially aid the health officers of all the ports along our coast which receive vessels from those localities at the present time suffering from yellow fever. No time should be lost in getting these volunteers into practical work, and all honor is due to them for undertaking their perilous mission. Their duty is to inspect all vessels sailing for America from the ports at which

they are stationed ; and no vessel should be permitted to depart without the surgeon's certificate as to its sanitary condition and the health of the crew and the passengers.

With the aid of such officers, faithful in the discharge of their duties, it is believed by those whose opinions are entitled to respect, that the appearance of a case of yellow fever in an American port may be made a rarity.

Reviews and Notices of Books.

AMERICAN HEALTH PRIMERS. Hearing, and How to Keep It. By CHARLES H. BURNETT, M.D. Philadelphia : Lindsay & Blakiston. Pp. 153. 1879.

THIS is the first of a series of Health Primers edited by W. W. Keen, M.D., and to be written by various prominent American physicians. The opening volume is somewhat larger than those of the similar series of English Health Primers, and is equally well printed and illustrated. In order to make a book out of the subject of aural hygiene, allied topics must of course be brought in, and the author has in this case introduced his subject with a very clear exposition of the anatomy and physiology of the ear. As regards the care of the ear, there are many valuable and practical hints. The use of sweet oil, glycerine, and ear-spoons, for cleaning the ear, is cautioned against, and the syringe is recommended as the only proper instrument for this purpose.

The danger to the ear from surf-bathing is mentioned, and that pastime is spoken of in a rather depreciating way.

The book is well and carefully written, and gives promise that the Primer Series thus introduced will compare very favorably with the English one, to which, however, the American issue will be as much a complement as a rival.

ELEMENTS OF MODERN CHEMISTRY. By ADOLPH WURTZ, Professor of Chemistry in the Faculty of Medicine of Paris, &c., &c. Translated by WM. H. GREENE, M.D., Philadelphia : J. B. Lippincott & Co. 8vo, pp. 687. 1879.

THIS book is a translation of the fourth French edition, and embraces the latest facts in chemical science, including those of the liquefaction of gases, and the demonstration of the metallic character of hydrogen. There is a great number of text-books on chemistry in the field already, but we know of none that will fill the wants of the student so completely as this. It presents the facts of organic as well as inorganic chemistry, without being as voluminous as Fownes', as condensed as Barker, or as unsystematic as Roscoe. The theoretical part is clearly told, the progress of the exposition being illustrated by experiments. A larger proportionate space has been, very properly, devoted to the metalloids, a knowledge of these, as the author states, being not only indispensable, but also more attractive to beginners.

There is something of a preponderance also of organic chemistry over inorganic, and the array of formulæ will appear somewhat discouraging to the student. Such a prominence, however, is almost a necessity from the immense number of facts now accumulated in regard to the carbon compounds.

The book is excellently printed and fully illustrated.

A TREATISE ON GOUT, RHEUMATISM, AND THE ALLIED AFFECTIONS. By PETER HOOD, M.D. Second edition (revised and enlarged), with a chapter on Longevity. Philadelphia : Lindsay & Blakiston. 8vo, pp. 431. 1879.

THE second edition of this work is a deserved indorsement of its value and interest. Dr. Hood, its author, writes not as an experimenter or theorist, but as one whom thirty years of practical experience entitle to be considered authority on the subject of which he writes. A large part of the work is devoted to the consideration of the cause and nature of gout, and in this connection the various theories of its pathology are discussed at much length. The vascular turgescence theory of Dr. Gairdner, the chemical theory of Dr. Garrod, and the combustion theory of Dr. Bence Jones, are each of them set forth very clearly, but none are accepted as embracing more than part of the truth. The author indeed, while destroying the systems of others, fails to present any very definite one of his own. He is inclined to lay much stress upon changes in the fibrin and other constituents of the blood, and to deranged function of the liver and nervous system. He seems to be most strongly impressed, however, with the idea that in gout there is a *materies morbi* in the blood which should be eliminated, and that then a proper nutritive equilibrium should be established in order to prevent future attacks. This idea cannot be considered strikingly new. Indeed, whatever be the refinements in the pathology of gout, the main idea can always be expressed broadly in the humoralistic terms of Sydenham, who says: "The quitting of bodily exercise of a sudden causes the excrementitious part of the juices, which was formerly expelled by means of such exercise, to lie concealed in the vessels and feed the disease."

As regards treatment, colchicum, though admitted to be a specific for the attack, is asserted to be a dangerous remedy, and one to be used with caution, if at all. The author uses, during the attacks, a cholagogue cathartic, and he follows this with alkalies and ethers. Locally, the use of laudanum and whiskey has pleased him more than any other remedies employed.

The chapters on rheumatism and longevity present the subject well, but furnish us nothing particularly new.

The book on the whole is an excellent one, and the author, in spite of a certain diffuseness of style, has made it interesting throughout.

AN INTRODUCTION TO PATHOLOGICAL AND MORBID ANATOMY. By T. HENRY GREEN, M.D., Lond.; Fellow of the Royal College of Physicians, Lond.; Physician to Charing-Cross Hospital, etc., etc. Third American, from the fourth revised and enlarged English edition. With one hundred and thirty-two illustrations. Philadelphia : Henry C. Lea. 1878.

THIS manual of Pathology has passed through three editions, and has been well received by the profession. The fourth revised edition is before us, and in it the general high character of the work is maintained. It contains much new matter, the object of the author being to make it a more complete guide for the student. The arrangement and choice of subjects has made the book very satisfactory ; and for the student of morbid anatomy, or the general practitioner who cannot spare the time to study extended treatises, the concise statements which it contains will be found very serviceable. It would be pleasing to give special reference to the various subjects which have been presented, but this seems to be superfluous, for the reason

that the general contents of the book are already well known to students and the working members of the profession. The recent additions are the chapters on tissue changes in pyrexia, on fibromata, and on leukaemia. The pretensions of the book are modest and meritorious.

PHOSPHATES IN NUTRITION, and the Mineral Theory of Consumption and Allied Diseases. By M. F. ANDERSON, L.R.C.P. Ed., etc. London: Baillière, Tindall & Cox. 8vo, pp. 200. 1878.

THIS book is rather a plea than a treatise. The author's theory is that there are two varieties of diseases of nutrition; one is due to *organic* innutrition, and includes starvation when organic food is insufficient or not assimilated, and fatty degeneration when there is deficiency of albuminates. The other variety is due to *inorganic* innutrition, and includes scurvy, rickets, scrofula, consumption, cancer, and leprosy. The supply of the proper organic food will prevent or cure these diseases. The author made many original experiments from which he deduced his theory. His work is evidently carefully done, and his conclusions deserve both study and trial, bearing as they do upon a class of obstinate or incurable diseases.

DIFFERENTIAL DIAGNOSIS, a Manual of the Comparative Semeiology of the more important Diseases. By F. DE HAVILLAND HALL, M.D. Philadelphia: D. G. Brinton. Pp. 205. 1879.

THIS is a book which will delight the student who is "cramming," and will be of much value to the general practitioner. It shows a very wide research among medical authorities for points in differential diagnosis, and the author and American editor have arranged their material with care and judgment. The work is essentially a compilation, but it is a reliable one, and we have found only a few points which are not as given by New York teachers. In addition to the differential diagnosis tables, are notes calling attention to pathognomonic symptoms, if such exist, and giving synopses of clinical history. With the increasing prominence which differential diagnosis is receiving, we predict a success for this manual.

A MANUAL OF PHYSICAL DIAGNOSIS. By FRANCIS DELAFIELD, M.D., and CHARLES F. STILLMAN, M.D. New York: William Wood & Co. Pp. 30. 1878.

THE special merits of this book are that it is simply and clearly written; it is bound interleaved, so that notes and additions may be made; and it has sets of superimposed colored plates which show very perfectly the position and relations of the thoracic and abdominal viscera. The conciseness of the book and the excellence of the plates will recommend it to the student. It does not attempt the theoretical part of physical diagnosis, and it omits some of the minor and less important signs.

ATLAS OF HISTOLOGY. Parts I. and II. By E. KLEIN, M.D., F.R.S., Lecturer on Histology at St. Bartholomew's Medical School, and E. NOBLE SMITH, L.R.C.P., M.R.C.S. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

THIS elegant work, which is now being issued in quarto form, is intended, as the preface indicates, to illustrate the minute anatomy of man and the other vertebrates. The drawings are nearly all by Mr. Smith, though a few are to be found in Klein's former works, such as his "Anatomy of the Lymphatic System." Blood is the subject of the first chapter; then follows Epithelium, Endothelium, and Connective Tissue,

with which the second volume is closed. Each chapter is written with care, and generally is succinct and clear. One of the first things we notice is that the authors give in their adhesion to the idea that the protoplasmic substance of the corpuscles consists of a network, at the nodal points of which are enlargements, which are the "granules" seen in the colorless corpuscles, and whose supposed active movements we have called "Brownian." The nucleus is said also to contain a similar network (intra-nuclear) which is continuous with the intra-cellular. Still, it is admitted by the authors that there are other granules within the meshes. The advantage of coloring in a work of this kind is apparent from the way that particles of vermilion are represented in the interior of a corpuscle after they have been "swallowed." Other corpuscles that have gone through this stage are seen to be busy ejecting them. The same intra-cellular and intra-nuclear network is attributed to epithelium, endothelium, and the fixed connective tissue corpuscles. As for membranes, this vexed question is decided in a way that may give comfort to both parties in the conflict over its existence or non-existence. Some epithelial bodies have them, it is said; others do not; it is not a real membrane in any case, but simply a condensation of the otherwise soft material. Cilia are said to be prolongations or continuations of an intra-cellular network whose contraction gives rise to "ciliary movement." When upon the subject of connective tissue, we are not surprised to find that the connective tissue corpuscle is first relegated to the endothelial group, and then made to be synonymous with the endothelial bodies themselves. It renders our conception of the relation between connective tissue and lymphatic spaces a much more simple one, even if it is not wholly complete or satisfactory. There is a lack of clearness about this part of the work that is disappointing, especially as just now we are looking for a final solution of these interdependent subjects. An attempt seems to be made to reconcile the views of some of the older German writers, while no notice is given to what has been done in England or America.

If the book has assumed an advanced position that all modern histologists cannot defend, it has the charm of usually stating its position in round and distinct phrases.

The drawings are excellent, and indeed have not been surpassed in any histological hand-book.

OBSTETRIC PRACTICE IN SIAM.—Medicine, and particularly obstetrics, seem to be in the most primitive condition in this country. Labor cases are generally attended only by ignorant women. If there is an emergency, male physicians are called in, but these are quite as bad as the midwives, and rely chiefly on incantations and absurd compounds for producing relief. To hasten on the uterine contractions the abdomen is pounded and kneaded, or even jumped upon. After delivery a most curious and painful ordeal has to be gone through with. The woman is placed as close as possible to a hot fire, and she is obliged to continue beside it for thirty days, suffering the agonies of a scorching heat and being only allowed hot water to drink. The custom is very firmly rooted, and no amount of persuasion will make the women do away with it. It has a certain scientific basis, from the Siamese standpoint, for it is believed that after parturition there is a diminution of the fire element in the system which causes the evolution of all sorts of bad humors.—*Archives of Medicine.*

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 14, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

(Continued from p. 92.)

ADENO-CYSTIC TUMOR OF THE OVARY—KIDNEY WITH DOUBLE URETER.

Dr. Lee also presented a specimen of adeno-cystic tumor of the ovary, together with the portion of the uterus to which it was attached, and one of the kidneys with a double ureter, from the same patient.

Mrs. H., *æt.* 30, married, and had had one child still-born five years ago. Was admitted to Woman's Hospital April 12, 1879. Menstruation regular since the time of her confinement, which occurred five years ago. After her confinement she noticed that her abdomen did not decrease in size, and consulted Dr. Budd, who told her she had an abdominal tumor. She had no pain, and her general health continued fair until three months ago, when she fell on her side, and had at once all the symptoms of acute peritonitis. That slowly subsided and left the abdomen altered in shape, although as large as ever. When admitted to hospital the abdomen measured 52 inches in circumference, and evidently contained a large, solid tumor, floating freely in fluid. Its character and origin were doubtful, but it was thought by Dr. Thomas to be an adenoma of the ovary. The tumor itself was not tapped, but the abdomen was, and the fluid obtained was doubtful in character. For ten days after admission to the hospital she did fairly well, when she suddenly had a succession of chills; the temperature ran up to 104° F., the pulse to 130, and, though little abdominal pain existed, all her symptoms pointed to the existence of septic peritonitis. The question of operation now became one to save life, and was done as a last resource. It was performed April 28th.

There were no anterior adhesions. When the base of the tumor was obtained it was found that it included the entire uterus. The pedicle, consequently, consisted partly of the uterus as well as of the broad ligament. An effort was made to separate the tumor from the uterus, but separation was found to be impossible, and it became necessary to include it with the tumor. The hemorrhage was very slight, amounting to no more probably than three ounces. The woman died from what seemed to be purely secondary surgical shock.

April 29, 1879.—Autopsy fifteen hours after death:

External Appearances: Body emaciated. Incision in *linea alba* 20 cms. in length, and extending nearly to symphysis pubis.

Heart: Decolorized post-mortem clot in right ventricle.

Pleura: Extensive old pleuritic adhesions on right side. Lungs normal.

Spleen normal.

Kidneys: Left kidney had two ureters, which have a common opening into the bladder.

Liver normal.

Peritoneum: Acute general peritonitis. Thick fibrous deposits on visceral and parietal peritoneum, firmly agglutinating the intestines. A glass drainage-tube extended from the external incision into the vesico-uterine pouch. There was a small quantity of brownish fluid in the peritoneal cavity. No blood.

Uterus: The uterine cavity measures from the fundus to the external os, 9 cms.; from fundus to os internum, 6 cms. Thickness of its wall in middle of body, 1½ cms. Its right cornu was included by a ligature, which also embraced the uterine extremity of the right Fallopian tube and adjacent portions of the broad ligament. The uterus itself was essentially normal. A number of ligatures included the stump formed by the structures above mentioned. The circumference of the stump at its base was 18 cms. The stump had been drawn out of the external incision and held there by a long needle (Peaslee's needle).

Ovaries: There were no traces of the right ovary. The left ovary was somewhat enlarged, about twice the normal size, its external surface peculiarly convoluted, resembling the convolutions of a child's brain. Its cut surface presented several small cysts.

Rectum, bladder, and vagina normal.

Tumor: The tumor removed had a smooth surface, and contained a large number of cysts, with a large amount of solid tissue. The largest cyst was about the size of a child's head, and presented on its external surface an opening about 8 cms. in diameter, and with lacerated edges, as if it might have ruptured spontaneously. Some of the cysts contained a brownish, limpid fluid, hemorrhagic; others a transparent thin fluid, and many of the smaller ones a yellow, viscid fluid, such as was frequently obtained from ovarian cysts. Brownish masses, with glistening specks, were contained free in some of the cysts. These were found, under the microscope, to consist chiefly of free fat and cholesterine crystals. In the fluid obtained from the cysts the so-called ovarian corpuscles were present. Large granular bodies, inflammatory corpuscles of Gluge, were also present. The measurements of the tumor were, laterally, 37 cms.; vertically, 25 cms.; antero-posterior, 15 cms. On the lower surface of the tumor was attached the Fallopian tube, with its fimbriated extremity, through which a probe could be passed along the tube. The tube had been divided close to its uterine termination. The Fallopian tube on the tumor had the remarkable length of 31 cms. The tumor was therefore a multi-locular adenoma of the right ovary.

Dr. Lee further remarked that such tumors could be distinguished from solid tumors: *first*, by the entire freedom of the uterus when the tumor was moved; and *second*, by tentative gastrotomy. The diagnosis, by the presence or absence of a certain form of cell, was unreliable.

DR. PUTNAM-JACOBI remarked that the condition of the left kidney in Dr. Lee's first specimen seemed to indicate destruction of renal tissue, by reason of pyelitis, produced by a direct extension of inflammation through the ureter from the bladder.

DR. LEE remarked that he used the term Bright's disease because examination of the urine showed the presence of casts, and the history seemed clear that the diagnosis of Bright's disease before she came under his observation was correct.

DR. BRIDDON remarked that the fatty condition of the right kidney indicated the existence of chronic Bright's disease.

DR. KEYES asked if relief of vesical tenesmus was complete during the time the patient wore the glass tube.

DR. LEE replied that relief was complete up to the time of death.

DR. HOWE asked why dilatation of the neck of the bladder would not have answered as well as the cutting operation for the relief of the cystitis. He thought that dilatation in a patient having Bright's disease

gave a better chance of recovery than the use of the knife.

DR. LEE remarked that his experience did not enable him to answer the question. In the few cases, however, in which he had seen forcible or gradual dilatation of the neck of the bladder performed for the relief of cystitis in women, the success of the operation had been only temporary.

DR. HOWE regarded the cutting operation as more dangerous than dilatation.

DR. KEYES asked if any deaths had occurred after cystotomy in the female.

DR. HOWE replied that he had had no experience in cystotomy in the female.

DR. BRIDDON remarked that he regarded the cutting operation as the simplest and the safest. In a patient whom he saw, and who had both cystitis and pyelitis, the cutting operation was performed; not only without detriment, but with positive benefit.

DR. HOWE remarked that an essential difference between the cutting operation and dilatation was: in one instance, the risk attending exposure of a fresh and suppurating surface to urine must be taken; while in the other, no such risk obtained.

THE LARYNX OF A LEPER.

DR. LOUIS ELSBERG presented the larynx of a leper, and directed special attention to the change seen upon the tongue, upon the epiglottis, upon the arytenoid cartilages, and upon the aryteno-epiglottic fold.

Abraham Brown, æt. 45, born in the United States, widower, and a bricklayer, was admitted into Charity Hospital, July 5, 1878. His family history was excellent. His previous history was, that about twelve years ago he went to Cuba, and was in Santiago three years. While in Cuba he was attacked with yellow fever. He never saw a case of leprosy while there. After leaving Santiago he returned to New York City, where he has been ever since. He noticed nothing about himself until February, 1878. Formication on the forehead was the first symptom noticed. It was accompanied by a feeling of malaise and general languor, being drowsy, and having frequent chills, but did not interfere with his work. In April, 1878, an eruption, in the shape of small tubers, appeared all over the face. Soon after this his eyebrows and lashes fell out. He had a feeling of numbness in his fingers; noticed that he was losing sensation in tips of fingers; could not appreciate the shape of objects as formerly. This was followed by the same condition on legs. Had no alopecia but that above mentioned; his eyesight has been failing him. Has had no venereal trouble, save gonorrhœa. Has had no marked general systemic disturbance since onset of the disease.

Present condition.—April 1, 1879. The patient has a very savage appearance. The integument very much discolored, being of a leaden hue. Has several tubers on face and forehead; on left cheek there are several tubers clustered together, and the remains of an old ulceration. Nose and lips are rough from the infiltration beneath the skin. Both lobules of the ears hang down like immense earrings. Body has an eruption on it, being quite dark in color. Arms and legs are covered with fine scales. Hands and feet have been very œdematous, but at present are not much swollen. Both hands are very tender, and present the following appearances: skin dry and thickened; show remains of ulceration of finger-nails. The first two fingers of the left hand show a hyper-extension. The nails of little and ring-finger have undergone ulceration, and are almost gone. The joints of the

finger are being rapidly absorbed, so much so that the last phalanx of the little overrides the second. Has general glandular enlargement. Ulnar nerves very thick and rigid. There is very little pain in them, and are not very tender. Right hand presents very much same appearance as left. Nails of the toes have undergone ulceration. Nasal passages affected; breath very offensive; voice very much impaired, and so husky that it is difficult to understand him. Tongue cracked, bleeds easily; saliva dribbles from his mouth. Gums are red and swollen. Following is a laryngoscopic examination, made by Dr. Elsberg last autumn:

"Palato-glossal and palato-pharyngeal folds have been ulcerated through and become adherent in several places. Inner sides of cheek and posterior wall of pharynx are dotted with small papillary excrescences. One large ulcer on hard palate. Patient has ozœnic catarrh, and although pituitary membrane seems to be injected, no tuberosities are present. Epiglottis tumefied. Its free edge thick and irregular, with angular lateral boundaries; hangs over larynx; ary-epiglottic folds congested and uneven, covered with a few large and small tuberosities. The lumps partially hide and give to the arytenoid cartilages an ill-defined and shapeless appearance. Posterior halves of vocal cords masked beneath the growth. Two large lumps are seen—one anterior, the other posterior to the left arytenoid. On its inner side vocal cords are of a dirty yellow color. In interarytenoid space one large tubercle stands out prominent into larynx."

Patient complained very little. His general condition was good up to April 1, 1879. Complained then of a general soreness all over body. Has tenderness of lips and gums. Appetite fair. Emaciated. A temporizing prescription was ordered by the attending physician.

April 11th.—Ulcerations improving, and showing a tendency to heal, but no marked improvement over previous condition.

April 15th.—Feeling good, but wished a change of diet.

April 18th, P.M.—Complained to orderly of a feeling of oppression over chest.

April 19th, 8 A.M.—Was called down to see patient; said he felt badly, but could give no definite symptom. Slept very little during the night.

April 19th, 10 A.M.—Patient died suddenly. Heart and lungs not examined.

Autopsy made by Dr. Maxwell, Curator to the Hospital, twenty-eight and a half hours after death: Body of medium size, emaciated, rigor mortis present. (For external appearance, see description above.) Left leg and right arm atrophied.

Head: *Calvarium, dura, sinus* normal. There is only one vertebral artery (left). Pia mater and brain substance pale, otherwise normal.

Spinal cord and roots of spinal nerves: The latter on the right side, corresponding with the cervical and lumbar enlargements, show an increase in size equal to twice that of the roots on the opposite side. The nerves have almost completely disappeared, and the nerve-sheath is distended with a firm, yellowish, shining connective tissue. The nerves on the opposite side corresponding, show in some instances a slight degree of the same change. The lumbar nerves show nothing abnormal.

Cord: There is slight adhesion between the opposed surfaces of the arachnoid in the upper cervical region—posterior surface. The pia mater and cord substance anæmic. In the cervical and lumbar regions the lateral columns are firmer and grayer than normal (lateral sclerosis—localized). This was not

noticed in the dorsal region; the cauda equina shows nothing abnormal.

Thorax: Slight pleuritic adhesion on left side posteriorly.

Lungs: Right lower lobe, about two-thirds its surface and the whole of the middle lobe covered with a thin layer of fibrinous exudation. Base of its lower lobe shows an infarction about two inches in diameter, in yellow stage. The branches of the pulmonary artery on both sides, except the smaller branches, show at their points of bifurcation firm thrombi, yellowish in color, and quite intimately attached to the coats of the vessel. The largest of these thrombi are centrally softened. The only result of this thrombosis, with above exception, is collapse of the lungs. Surface of lungs pale. A small amount of vesicular emphysema in upper portions. Mucopus in bronchi.

Tongue and larynx: Upper surface of tongue shows a row of tubers on either side of the median line spreading out at the base, and at this portion a few are superficially eroded. The palato-glossal folds and the pharynx show a few nodules.

Epiglottis: Its tip for half an inch is thickened to extent of one-fourth inch; presents at its very tip an oval ulceration. On its anterior face a white, and at one point a puckered, cicatrix. Whole tip of epiglottis thickened, and the thickening seems to be in the mucous membrane, the latter sliding freely over the underlying cartilage. In median line is infiltration of the mucous membrane; at base of epiglottis, more yellow than normal, and in centre of this infiltration a superficial erosion. Orifice of glottis presents an oval, puckered appearance. The ary-epiglottic folds are irregularly thickened at their posterior attachments. The mucous membrane covering the vocal bands presents an almost uniform nodular thickening. The ventricular fold on the right side and the left vocal band present this condition most markedly. Below this, the mucous membrane of the larynx, trachea, and bronchi shows nothing worthy of note.

Heart: Pericardium normal. Weight of heart eleven ounces. Right side contained a post-mortem clot. The walls of about normal thickness, yellowish brown color, the trabeculae flattened. Valves: slight thickening of free margins of mitral and tricuspid, and a few scattered patches at the base of the aortic and on the anterior leaflet of the mitral valves. The aorta is thickened, its intima corrugated from chronic endarteritis. This condition extends most markedly throughout the thoracic portion, with a few calcareous patches. Blood thin, and has cherry-juice appearance.

Abdomen: Liver measures eleven inches in length, seven inches broad, and three inches thick. Weight fifty-three ounces. Cirrhotic. No amyloid reaction.

Spleen: Five inches in length, four inches in breadth, and one inch and a half thick. Weight nine ounces. No amyloid reaction. Shows in its upper border two old infarctions. Parenchyma pale, firm.

Kidneys: Chronic diffuse nephritis. Measure three and seven-eighths inches in length, two inches in breadth, and one and three-eighths inches in thickness. Weight four ounces. Somewhat diminished in size, capsules adherent, and when stripped leave a granular surface. An old infarction noticed on surface of right kidney. On section find cortical portion markedly atrophied, pyramids deformed. Columns of tubules cannot be traced above the bases of pyramids. Cortex has reddish-yellow color.

Pancreas and stomach normal.

Intestines: Mucous membrane shows patches of congestion.

Lymphatic glands: Mesenteric and retro-peritoneal glands normal. Deep inguinal glands enlarged and pigmented. Subcutaneous fat tissue, deep yellow color, and softened.

Muscles of body have dark red color, and the affected portions atrophied.

Nerves: Right ulnar above the elbow shows a fusiform enlargement two inches in length, and of almost stony hardness. Below this point the nerve is atrophied, and of yellowish color. The left ulnar shows only a slight fusiform enlargement at the elbow.

Left popliteal shows enlargement and hardness; the peroneal and sciatic are atrophied. The atrophied nerves are flattened, of dirty-yellow color, the nerve appearing to be more firmly attached to its sheath than normal. The nerve-fibres very much smaller than normal, of yellowish color, and seem to be bound together by a firm connective substance. The enlarged and firm portions of the nerves do not show so much atrophy of the nerve bundles, and the latter project beyond the level of the anterior surface, and have a gelatinous appearance.

The lumbar and sacral plexuses within the body show nothing abnormal.

CHRONIC VALVULAR DISEASE AT THE AORTIC ORIFICE, WITH FATTY AND WAXY KIDNEYS; DEATH FROM ACUTE CATARRHAL PNEUMONIA.

DR. BEVERLEY ROBINSON presented the heart, removed from a patient, aged 34 years, teamster, who died under his care at Charity Hospital, April 22, 1879. The patient had had syphilis several years before his death, and had suffered from intemperate habits.

The interest of the specimen related mainly to the condition of the leaflets of the aortic valve. The posterior and middle leaflet were fused together and at their point of fusion a hard, rough, and prominent calcareous mass could be seen and felt. The mitral valve and orifice were tolerably free from disease; a little thickening of the anterior leaflet and the attached cordae tendinae being the sole morbid lesions observed. At the post-mortem the walls of the heart were firm and of dark red color. Its weight was 14 ounces. There was evident hypertrophous dilatation affecting both sides. By hydrostatic test there was free regurgitation at the aortic orifice. Both kidneys presented distinct evidences of advanced fatty and amyloid disease.

As a clinical fact, it should be noted that the murmur heard during life was more intense with the first sound and near the apex than elsewhere.

CHRONIC LOCALIZED PLEURISY (R); CHRONIC INTERSTITIAL PNEUMONIA (RIGHT UPPER LOBE); ACUTE CATARRHAL PNEUMONIA (RIGHT MIDDLE AND LOWER LOBES); EMPHYSEMA, ACUTE OEDEMA AND CONGESTION (LEFT LUNG); PARTIAL CARDIAC HYPERTROPHY; CHRONIC DIFFUSE NEPHRITIS.

Dr. Robinson also presented the right lung, removed post-mortem, from the body of G. W., aged 40 years, pianist, who died April 29, 1879.

Upon admission, April 24th, to the hospital, a few days before death, the patient was suffering from cough, dyspnoea, and abundant yellow expectoration. How long he had had these symptoms could not be determined, as he spoke an unintelligible German patois. He had not apparently lost much flesh and his strength was sufficient to permit him to walk freely about the ward. His appetite was fair; his legs oedematous; micturition frequent; upon examination no albumen was found in urine; the quantity passed was about normal. Physical examination revealed signs

of consolidation at apex of right lung, and those of emphysema at apex of left lung. Posteriorly and on the right side pneumonia was the diagnosis made by the house-physician.

On the day of patient's death, and only nine hours previous, he was suddenly attacked by a marked chill, followed by increased fever, notable pain in the chest, and excessive difficulty of breathing.

Pulse 134; respirations 47; Temp. 104½ Fahr.

About three hours after the commencement of these accidents he saw the patient, and detected, as he believed, acute consolidation at the left apex, and at right apex and below this seat on either side in front, the signs of an older inflammatory lesion. He inferred that the actual aggravation of symptoms was caused by the extension of the acute pneumonic process.

The patient's condition was obviously so critical that he did not consider it advisable to raise him and make an examination of his lungs posteriorly.

The autopsy, made fifteen hours after death by Dr. E. A. Maxwell, showed the following:

Pleural cavities: Right shows bands of adhesion extending to costal layer from boundary line of upper and middle lobes; above this the cavity is filled with the fluid of chronic pleurisy. Below this portion both layers of the pleura show considerable thickening. Left pleural cavity normal.

Lungs: Right upper lobe consolidated by chronic interstitial pneumonia; lower lobe and lower portion of middle lobe consolidated by acute catarrhal pneumonia in gray stage. The left lung shows inflation overlapping the anterior mediastinum. There is general emphysema, congestion, and oedema. Both lungs show intense bronchitis.

"From the foregoing history and the morbid lesions revealed at the autopsy I wish to draw an analogy between this case of ambulatory pneumonic consolidation with chronic pleurisy of the right lung, followed by very rapid and intense generalized oedema and congestion of the entire left lung, and resulting in a speedy death, and those instances of sudden oedema of a relatively healthy lung, which occasion death after the operation of thoracentesis for large fluid effusions of the pleura.

"I believe the chill in the present case, which occurred the same day the patient died, was due to cold, which likewise occasioned the oedema in the left lung. After a like impression of cold we may have cases of rapidly fatal oedema in pleuritic patients from whom fluid has been aspirated. I do not believe, however, that the aspiration itself, as it has been stated, should be made accountable for that immediately dangerous complication."

FIBROUS PHTHISIS—LARYNGEAL PHTHISIS (SO-CALLED)
—WAXY LIVER, SPLEEN, STOMACH, AND INTESTINES
—OLD ULCERATIONS OF LARGE AND SMALL INTESTINES.

Dr. ROBINSON also presented the larynx removed from a patient who had come under his care the day he died, for the purpose of having tracheotomy performed as a prophylactic measure of relief against excessive dysphagia and urgent dyspnoea. The lungs were already much altered by fibrous phthisis, and the apices were riddled with large and small cavities. The prospect of an ultimate cure was therefore almost hopeless. A laryngoscopic examination was not made, and, owing to the advanced condition of the intra-laryngeal disease, as it is now visible, it may be doubted whether in this instance tracheotomy would have availed much, even so far as the mere relief of symptoms is concerned. As a general fact, however,

it is known tracheotomy does relieve very markedly advanced conditions of intra-laryngeal disease, and should therefore be performed when practicable, or unless there be some very formal contraindication. The condition of the larynx was as follows, according to post-mortem record made by Dr. J. F. Holmes:

"Lower half of laryngeal face of epiglottis is studded with nodular elevations (enlarged follicles). Mucous membrane of larynx quite pale; vocal cords appear to be considerably thickened and swollen, more especially the left; ventricular bands are also much hypertrophied. No evidences of ulceration in the larynx." To this description I would add that the epiglottis, ary-epiglottic folds, and arytenoid cartilages are all very much thickened and infiltrated. In fact, the entire larynx presents a typical case of so-called laryngeal phthisis. Are tubercles present? I do not believe they are.

This is the third case of similar nature shown by me to the members of the Society, and I am desirous that it should be examined carefully by the Microscopical Committee, and a report of what they shall find made at a later meeting.

Dr. PUTNAM-JACOBI asked Dr. ROBINSON if he held the view that pulmonary oedema occurred after death? Dr. ROBINSON replied that he had entertained that belief.

Dr. PUTNAM-JACOBI remarked that she had always regarded oedema as a vital condition.

Dr. LEE remarked that the clinical point of interest in Dr. ROBINSON's case was the fact that extensive lung consolidation was not incompatible with considerable activity and vitality, and at the same time sudden death might occur in just such cases.

Dr. ROBINSON remarked that he presented the specimen chiefly because of its interest in one point of view; it enabled us to draw an analogy between the cases of sudden death after thoracentesis from pleurisy, and sudden death from oedema of the healthy lung in a case of pneumonia. He attributed the sudden development of the oedema to taking cold.

Dr. LEE asked Dr. ROBINSON whether he considered it worth while to perform tracheotomy in a recognized case of laryngeal phthisis?

Dr. ROBINSON believed that all the symptoms could be relieved by the operation, and that it could be performed with a possible hope of effecting a cure. His conviction was that, in a majority of cases of so-called laryngeal phthisis, there were no tubercles in the larynx. He thought the profession should look upon the operation of tracheotomy as one almost demanded.

Dr. ELSBERG remarked that, so far as he knew, he was the first to suggest and perform tracheotomy in laryngeal phthisis. He did not agree with Dr. ROBINSON with reference to the extreme rarity of tubercle in the larynx, but he was satisfied that tubercle was not present so frequently as some were disposed to think.

Scarification of the upper part of an enlarged and phthisical larynx, with the view of reducing its size, was of no service whatever.

A DIVERTICULUM.

Dr. J. LEWIS SMITH presented specimens, accompanied by the following histories and remarks:

The first was a diverticulum from the ileum. It was removed from the body of an infant that died in convulsions, at the age of five months. The convulsions and death seemed to be due entirely to a severe broncho-pneumonia. There were no appreciable symptoms referable to the diverticulum. The point at which the diverticulum was attached to the ileum was just one foot from the ileo-caecal valve, and

to that part of the intestine which was directly opposite to the attachment of the mesentery. At its attachment it had nearly the diameter of the adjacent gut. It gradually tapered from its base to its distal extremity, so that its shape was that of a symmetrical cone, which pointed forward when the abdominal walls were opened in the dissection. The entire length of the diverticulum when fresh was two and three-fourths inches. It was filled with gas, except the terminal half inch or the point, which was solid, and of a fleshy color and appearance; that portion had a cartilaginous feel, and communicated the sensation of a gritty substance when touched with the scalpel.

HERNIA OF THE CÆCUM.

The second specimen was removed from the body of a male infant, who died at the age of eight months. He was well nourished, and in good health till Friday, May 9th, when he became very fretful, as if in pain, and during the day the nurse observed unusual prominence in the right inguinal region. One healthy stool occurred on the 9th. On the 10th he continued fretful, had no stool, and several times vomited a greenish substance. A dose of castor-oil was administered, which was, however, vomited. The inguinal tumor continued as before, unless somewhat more prominent. On the 11th the condition was the same, except increasing weakness. Lime-water was administered by the attendants to relieve the frequent vomiting, but with no effect.

On the 12th he was rapidly sinking, and the nurse, now fully alarmed, brought him in the latter part of the day to the Dispensary of the New York Foundling Asylum, where Dr. Wilson, who was in attendance, at once recognized the nature of the malady, and sent him into the institution. Dr. Chadbourne, the resident physician, immediately examined the case, and made the following record: "Infant in collapse; limbs cold, face cool, features pinched, and eyes sunken; the tumor extends from the right inguinal region to the lower part of the scrotum. It has a dusky color, from the congested vessels underneath the skin; pulse feeble and quick; rectal temperature, $104\frac{1}{2}^{\circ}$; respiration, 80; the vomiting has ceased, and there is apparently but little suffering in consequence of the collapsed state." At 8 P.M., at the time of my visit at the institution, the patient was lying quietly on his back, the extremities cold, the pulse with difficulty counted on account of its rapidity and feebleness, but numbering about 180; rectal temperature, $105\frac{1}{4}^{\circ}$; respiration, 80; the features pinched, presenting the moribund appearance. The tumor could be handled without apparent pain on account of the low vitality. Having elevated the hips of the infant, an attempt to reduce the hernia by taxis was made. The testicle could be felt in the bottom of the scrotum, and the displaced intestine could be made to recede from it to the distance of perhaps one and a half inches; but manipulation and pressure to the extent which seemed prudent, although it diminished the apparent size of the tumor by crowding it against the ring, did not seem to produce any effect on the constriction. The displaced intestine could be felt within its scrotal covering, soft, flabby, and without contents. It was deemed best, in the prostrated state of the patient, to apply cold to the tumor, and to stimulate actively by brandy during the night; but three hours later, at 12 P.M., clonic convulsions occurred, which terminated fatally at 5 A.M. During the night the patient had five stools.

At the post-mortem examination, made a few hours after death, the small intestines were found distended chiefly with gas, and there was a small amount of

serum in the abdominal cavity. The protruded portion of the intestine was the entire cæcum, and nothing else. The attached end of the appendix vermiformis was drawn within or against the ring, the body of this *cul-de-sac* lying above in the abdominal cavity. The ileo-cæcal valve was also drawn down, so as to lie against or perhaps just within the ring. The cæcum had a dusky red appearance in consequence of the congestion, and one portion of the size of a ten-cent piece was dark, as if from commencing gangrene. Subsequent examination, however, showed that there was no gangrene, nor was any offensive odor noticed. There was no fecal substance or gas in the cæcum. The points of interest were the following:

1st. This was obviously a case of acquired hernia. The fact that no protrusion occurred till the age of eight months certainly forbade our regarding the hernia as congenital. In hernia, which we may properly regard as congenital, the escape of the intestine through the ring occurs in the first weeks of life; and from cases of this kind, which have been observed, even those much neglected, it appears that strangulation is rare. For, if the aperture is so patulous as to allow protrusion at this early age, when there is little expulsive effort, and the position is usually recumbent, the return of the intestine by taxis is also easy. Dr. Smith had not met a case, which seemed to be congenital, which he could not reduce. On the other hand, acquired hernia in the infant, like that in the adult, is liable to strangulation, and it therefore requires prompt treatment. The cause of the unsuccessful result of taxis in the above case was apparent at the autopsy. The large size of the cæcum, its feeble peristaltic and vermicular movement, as compared with that of the small intestine, which movement greatly aids in the reduction when the hips are elevated, and the impaction of the end of the appendix vermiformis, and perhaps also of the ileo-cæcal valve in the aperture, through which the protrusion occurred, afforded sufficient explanation of the persistence of the rupture and its strangulation.

2d. From the few post-mortem examinations which he had made in cases of infantile hernia, which had been chiefly congenital, death having occurred from other causes, Dr. Smith believes that the large intestine is much more frequently the part which protrudes in infantile than in adult cases.

3d. Constipation was not so prominent a symptom as it usually is in strangulated hernia. Total constipation was present only during two days, and on the last day after the manipulation there were five stools. This was explained by the fact that the ileum was free, and the ileo-cæcal valve was barely engaged. The five stools in the last hours of life might, it was true, have occurred from fecal matter which was already in the colon, or the ileo-cæcal orifice might have been raised sufficiently above the ring by the taxis to allow fecal matter to pass. We could see by this case how strangulation and gangrene might occur in hernia, without obstructing the passage of fecal matter, provided that only the cæcum is engaged.

Dr. Smith also presented a specimen of *spina bifida* from an infant that died at the age of three weeks, which was referred to the Microscopical Committee. He also presented

A LUNG TAKEN FROM AN INFANT THAT DIED OF EMPYEMA.

Dr. Smith remarked it was a common belief that pleurisy with effusion, especially empyema, was a rare disease in young children. He had regarded it as quite the opposite; and as evidence of the correctness

of that view, he mentioned the fact that within five weeks he had seen three cases in which the diagnosis was verified by post-mortem examination. Within the same time he also had seen three cases in which the exudation was sero-fibrinous. At the present time, while scarlet fever was prevailing epidemically, quite a proportion of the children affected by that disease were attacked by pleurisy, and it was very apt to be suppurative in character.

DR. BRIDGON thought Dr. Smith's statement incorrect with reference to the frequency of protrusion of the cæcum in hernia occurring in children. It was generally the small intestine that was involved, and the occurrence of that form of hernia was also rare.

DR. SMITH remarked that he wished to say, that if comparison were made between inguinal hernia in the infant and in the adult, the large intestine constitutes the contents of the hernial sac in a larger proportion of cases in the infant than in the adult.

DR. ELSBERG asked Dr. Smith whether in such cases he considered attempts at taxis as effective as an operation.

DR. SMITH replied that in the present instance no advantage would have been gained by an operation, for the child was nearly moribund when it first entered the asylum. He hesitated to advise an operation, as he would to advise tracheotomy for a child cold, and nearly pulseless with membranous or diphtheritic croup. Besides, it must be confessed that in this case the return of the stools gave rise to a doubt as to the exact anatomical state.

DR. ELSBERG thought that under such circumstances an operation certainly could do no harm.

DR. BRIDGON remarked that he was not able to conceive of any condition that contraindicated an operation in a case of strangulated hernia.

The Society then went into Executive Session.

Correspondence.

A REMARKABLE CASE OF SEMI-CONSCIOUS EPILEPTIC AUTOMATISM.

By C. H. HUGHES, M.D.,

FORMER SUPERINTENDENT AND PHYSICIAN OF THE ST. LOUIS, MO., STATE LUNATIC ASYLUM, ETC.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The season is too hot in this latitude to justify a lengthy discussion of the question as to whether *unconsciousness* is an absolute essential of epilepsy and epileptoid.

But a recent very able lecture in your columns, by that most able lecturer and writer, Allan McLane Hamilton, asserts that "epilepsy is a malady which in all cases implies a recurring loss of consciousness," etc.; and the writer does not "believe that any act of violence which has been done while the individual is said to be epileptic or suffering from an attack of epileptic mania, can be excused unless there is at some time *absolute unconsciousness*."

As this is the sunstroke season, you will, I am sure, and so will Dr. Hamilton, pardon me for treating the subject with such brevity as will soon be apparent.

A large experience with epilepsy, and especially in the observation of epileptiform disease, has forced me to abandon, along with Mr. Hughlings Jackson, the criterion of unconsciousness as an absolute essential of the *status epilepticus*.

For the typical *grand mal*, unconsciousness is an unvarying characteristic; but in *le petit mal*, while a brief period of unconsciousness is almost the universal rule, it must be conceded that there do sometimes occur cases clearly attributable to this disease when an element of real consciousness, usually, however, a sort of dreamy consciousness, such as one sometimes feel just before waking exists.

Dr. Hughlings Jackson, in the fifth volume of the "West Riding Asylum Reports," 1875, in an interesting article "on the temporary mental disorders after epileptic paroxysms," sheds a flood of light upon the medico-legal aspects of epileptic states. Momentary lapses of memory—and acts of cerebral automatism after epileptic seizures are supplementary of them, as is often seen among the insane—are indeed very common.

I have seen some of these automatic acts come on as the precursor of the subsequent undoubted *grand mal*.

A medical friend of this city consulted me in regard to a gentleman who was first led to seek his advice, on finding that he had, without knowing it, while standing at his desk (he was the bookkeeper of his firm), filled up and signed his firm's note, tearing the note from the note-book and filling in the stub unconsciously, without attracting any one's attention by any convulsive or other singular movement.

This was unconscious cerebration, due to incipient epileptic disease; the case having left the city, and since developed into one of well-marked epilepsy.

The following case, however, is one of conscious automatic cerebration, due to undoubted epilepsy, and is the most remarkable case on record:

The case was referred by Dr. Rumbold, the editor of the *St. Louis Medical and Surgical Journal*, to Dr. Chas. W. Stevens and myself, and a careful inquiry elicited the following facts, which possess a medico-legal significance too obvious to require comment. I conclude this hasty prelude to the case with the remark that an extensive observation of epileptic and epileptoid states have gradually forced upon me the conviction that their mental possibilities are infinite—their vagaries being such as no man can yet number. We cannot be too cautious before courts in our estimate of the volitional element in the acts of epileptics and epileptoids. If a man may reveal his disease in so simple a thing as tearing up or eating a prescription blank just handed him by his physician, or wiping his nose on a piece of paper, or spitting on the floor when not accustomed to doing so, he may pull a trigger or cut a throat, and be, seemingly, conscious, or, as in the following case, do as he has often been wont to do, with the exception of not realizing that what he is doing, while it is not unnatural, is out of time and place.

In the fall of 1867 Dr. N. got up after midnight, dressed himself, walked a quarter of a mile to a certain place on his farm to look at his "stock." After he had been there a while, seemingly to him a very short time, he awoke to a realization of the fact that it was not the proper time for him to be at such a place; although conscious of every step he took to get there. He went back to his house, undressed himself, and again retired to bed.

He was conscious of all that he did from the time of rising to dress himself, but did not realize the incongruity of his position, and that he ought then to have been in bed.

In 1875 he again did about the same thing, getting up and dressing himself, putting on his boots, clothing, cravat, collar, and hat, and taking his watch from under his pillow and looking at the time, every

act being remembered in the order in which it was done. He this time walked out into the street.

When he fully came to a realization of the fact that he ought to have been in bed, he was standing by a fence looking over into a vacant lot. He knew he had come to the lot, but not that he ought not to have been there at that hour of the night, until after a time it occurred to his mind that he ought to have remained in bed, whither he immediately returned.

The patient had had many real epileptic seizures preceding these somnambulistic displays, his paroxysms being so violent that they so alarmed his second wife, to whom he had lately been married, that she has parted from him.

1213 CHOUTEAU AVENUE, ST. LOUIS.

AN AURIST'S EARLY DISCOVERY OF THE ANÆSTHETIC PROPERTIES OF ETHER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The profession has shown an interest in every step that led to the final adoption of ether as a general anæsthetic, from Sir Humphrey Davy's experiments with nitrous oxide gas at the beginning of this century, and Pereira's allusion to the use of ether in 1839, down to Morton's final triumph in 1846.

But not to my knowledge has reference been made to the near adoption of ether as a general anæsthetic in 1829, and the fact is of such interest that I beg you will allow space in the RECORD for an account of it.

Having occasion to consult some of the older works on aural surgery in my library, my attention was arrested by the following line in a table of contents:

"Vapor of *Æther inhaled* (as assisting in the Examination of the Ear)."

The book I was consulting is entitled, "On the Varieties of Deafness, and Diseases of the Ear, with Proposed Methods of Relieving them." By William Wright, Esq., Surgeon Aurist to her late Majesty Queen Charlotte. London, 1829.

Turning to page 38 of this work, as indicated in the table of contents, I found the following paragraph:

"VAPOUR OF *ÆTHER* INHALED.

"It often happens, that there has been considerable herpetic eruption in the auditory passage, and the mere introduction of a piece of cotton wool, or even externally touching the ear to examine it, will produce a violent fit of coughing, through the irritation given to the fine fibres of the hard portion of the auditory nerve, which communicate the sensation to the nerves of the throat, etc.

"I have in these cases put a teaspoonful of ether into a cup, or evaporating dish, floating in a basin of warm water, and caused the patient to inhale the vapor, by merely breathing over the dish, which in almost every case will allay the irritation; and the cleansing of the ear can be proceeded in without difficulty. Some persons troubled with habitual cough, from chronic affection of the trachea alone, are peculiarly liable to have it excited by the slightest touch given to the lining of the tube of the ear; and having discovered that the above plan prevented the fit coming on, they have since constantly resorted to it with success, whenever the cough became troublesome."—(See *Aurist*, p. 79.)

Dr. Wright had, it appears, published this discovery even prior to 1829, in the *Aurist*, a serial which he edited.

Although the aural affection for which an operation

was required at the hands of Mr. Wright was not one of great magnitude, it was sufficiently painful to suggest the use of a quieting agent, and his description cannot now be read without exciting our wonder that he did not push the matter further and thus obtain more practical results.

We are led to the reflection, however, that many important discoveries are not the result of sudden inspiration, but that they emanate from the labors of many. For the final and uniform introduction of anæsthesia we are indebted to the peculiar art of Morton, who, when seized with the idea, never ceased to push it forward until successful.

SAMUEL SEXTON, M.D.

NEW YORK, July 18, 1879.

POISONING BY RHUS RADICANS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I wish to call the attention of the profession to the use of the liq. chlo. soda, or Labarraque's solution, in all cases of rhus poisoning. The acid poison requires an alkaline antidote, and this solution meets the indication fully. When the skin is unbroken it may be used clear three or four times a day, or in other cases diluted with from three to six parts of water. After giving this remedy a trial no one will be disposed to try anything else. It is one of the most valuable external agents known to the profession, and yet seldom appreciated, and but rarely employed. It will sustain its reputation as a local application in erysipelas, burns, and scalds.

Respectfully,

J. M. WARD, M.D.

CORNELLIA, Mo.

A CONTRIBUTION TO THE SCIENCE OF ACOUSTICS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—This case, possessing great interest for the profession in general, is especially notable for being associated with a discovery which further explains the physiology of the voice, and on that account is of value to the science of acoustics:

A Case of Multiple Papillomatous Growths in the Larynx, extirpated by complete Laryngotomy; Removal of the whole length of both true and false Vocal Cords; Preservation of the Voice; Co-existence of Thoracic Aneurism. J. Burney Yeo, M.D., and Joseph Lister: *Transactions of the Clinical Society of London*, 1878.

The title of the paper explains the operation, as well as the disease for the removal of which it was performed.

The patient made a good recovery from the operation, which was performed by Mr. Lister, and it was found that he retained considerable phonetic power. His voice, however, was harsh and hoarse, still it had the characteristics of voice. He easily pronounced vowel sounds—of course at a low pitch—and he could read so as to be heard at some distance. Dr. Yeo found on laryngoscopic examination after the operation that the normal intra-laryngeal structures were entirely absent. The arytenoid eminences were seen, and also the ary-epiglottic folds stretching from them. When the patient spoke, while still under examination, these folds approached each other in the median line, and their vibrations gave rise to the sounds of the voice.

Mr. Lister was much surprised to find that this patient still retained his voice, although he expected he would be able to cough as well as other people.

Mr. Lister stated that he joined in bringing this case before the Society on account of its interest in connection with the physiology of the larynx. Mr. Lister had long ago observed that the stertor which sometimes occurs in patients under chloroform could be arrested by drawing the tongue out, not merely until the tip was well beyond the teeth, but until firm traction, or an additional pull, had made the organ even more tense. Further observations convinced Mr. Lister that the stertorous breathing was not owing to the action of the vocal cords, but to the vibrations of the pulpy, vascular portion of mucous membrane which surmounts the summits of the arytenoid cartilages—the posterior parts of the aryteno-epiglottidean folds. Mr. Lister regarded these cartilages as not only rotating upon their vertical axes, by means of which the vocal cords are approximated or separated, but that they have also a lateral movement, by which their summits, with the mucous membrane that clothes them, can be brought into mutual apposition in the middle line, or withdrawn from each other. The summits of these cartilages are also liable to an antero-posterior movement, by means of which the soft folds above them can be carried forward and applied to the base of the epiglottis, so as to constitute a secure valve of the entrance to the respiratory passage. Mr. Lister has discovered in his own person that when he made sounds, the portions of mucous membrane referred to passed forward to the base of the epiglottis, and were seen to vibrate in that position, producing what he has termed *laryngeal stertor*. The stertor could be made to pass into complete obstruction to the entrance of air when the pulpy masses were made to press more closely forward. When he drew his tongue firmly forward, sufficiently to occasion uncomfortable stretching of the frænum lingue, the position of the epiglottis was not changed, but the mucous valve, independently of the will, retired backward, and a way was opened for the entrance of air. Mr. Lister further ascertained that these folds constituted the obstructing agent by which the exit of air is prevented during the expiratory effort which precedes coughing. The strain of coughing is thus removed from the delicate true vocal apparatus.

Mr. Lister himself produced the voice peculiar to stertorous phonation, and likened it to the sentence "Get away with you," which he had heard uttered by one little boy to another in the street, in a voice far too deep and gruff to have been produced at his age by the chordæ vocales.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The tone of discussion on electro-therapeutics, assumed by the members of the American Neurological Association at their last meeting (as reported in RECORD of 12th inst.), is very much to be deprecated, for the following reasons:

First. It gives the idea to the profession at large that electricity can be applied in a hap-hazard way, with good chances of success.

Second. It shows them that those supposed to have most experience in the use of this powerful remedial agent, disagree as to the manner of its use.

Third. It gives them the admission of at least one of the instructors in this branch of medical science, that he treats without knowing which pole he uses.

They disagree so *very widely* in the most important points.

Dr. Grey could see a *physiological* difference between the poles, but no *therapeutical* difference.

Dr. Hammond *knew* there was a *therapeutical* difference, as witnessed in the treatment of ulcers.

It was admitted that the *positive* pole was more beneficial in treating ulcers than the negative, but why? I have used electricity many times a day for the past ten years, and have proven to my satisfaction that the *pole* used, the *direction* of the current, and the battery employed are of great importance. This can be demonstrated beyond quibble or doubt, by any physician of ordinary intelligence, by trying the different poles on the following diseases: insomnia, neuralgia, rheumatism, nervous prostration, painful diamenorrhœa, paralysis, strychnia-poisoning, cramps, etc. I believe many text-books extant on electro-therapeutics *muddle* more than they enlighten the general practitioner, and this discussion shows that the muddle is not confined *alone* to those who *learn*, for those who *have* and *do teach* seem to make muddle doubly muddling.

We ought at this late day to *know* something of electricity as a therapeutic agent, and if our best minds are as far at sea as this discussion would seem to imply, it is high time to appoint an investigating committee with power to send for persons and papers.

Respectfully,

J. D. S. SMITH, M.D.

BRIDGEPORT, CONN., July 15, 1879.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 20 to July 26, 1879.

MOORE, JNO., Major and Surgeon. Granted leave of absence for one year, with permission to go beyond sea. S. O. 171, A. G. O., July 24, 1879.

WHITE, C. B., Major and Surgeon. Granted leave of absence for six months on Surgeon's certificate of disability. S. O. 171, C. S., A. G. O.

SEMIG, B. G., 1st Lieut. and Asst. Surgeon. Having reported in person at these headquarters, assigned to duty at Ft. Fred. Steele, Wyo. T. S. O. 61, Dept. of the Platte, July 15, 1879.

STORROW, Sam'l A., Major and Surgeon. Died at San Francisco, Cal., July 12, 1879.

CHRONIC BRIGHT'S DISEASE.—Dr. N. L. Guice, in a communication to *The American Bi-weekly*, gives the history of a case of chronic Bright's disease apparently cured by the use of iodide of potassium. The patient, aged 50, had suffered from malaria, but no history of syphilis was given. He became affected with Bright's disease, with all the characteristic bad symptoms. His urine contained a large amount of albumen, together with granular and hyaline casts. Iodide of potash was ordered in doses of gr. v. three times a day, and this was gradually increased to gr. xij. during the course of treatment. The symptoms slowly improved, and by the end of six months the patient appeared in every respect well. Iron and bitter tonics supplemented the potash. Five other cases of the successful use of the iodide in this disease have been reported.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending July 26, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 19, 1879.	0	8	69	4	53	22	3	0
July 26, 1879.	0	4	49	1	36	24	3	1

THE YELLOW FEVER.—There seems to be a public opinion that the disease in Memphis has been kept within certain limits by the general depopulation of that city. At all events, the fever has prevailed extensively during the last week, and has reached in mortality nearly the ratio said to be required to make it allowable to call it epidemic. To be declared epidemic the number of deaths during the week must exceed those from all other causes, and the President of the Board of Health thinks it doubtful if it can be declared so this season, because the latest week's death-roll showed thirty-four for yellow-fever and thirty-seven for all other causes, and all that will remain in the city after camps have been established are considered yellow-fever proof.

From New Orleans one death is reported; no new cases.

In neither New York nor Brooklyn have any new cases developed.

DEATH OF DR. WILLIAM COOPER.—Dr. Cooper died at New Albany, Indiana, July 10, 1879, from cholera-morbus, after an illness of only twenty-four hours' duration. He was born in Chambersburg, Pa., in 1809, graduated from Jefferson Medical College in 1833, moved to New Albany in 1835, where he practiced medicine until his death. He was the oldest physician in that city.

THE NEW YORK ACADEMY OF MEDICINE.—Dr. Abraham Du Bois, of this city, has increased his donation to the Academy to \$8,000, for the erection of a fire-proof extension to the building now the property of the Academy, No. 12 West Thirty-first Street.

THE AMERICAN OTOLOGICAL SOCIETY held its annual meeting at Newport, R. I., on the 23d of July, 1879, Dr. Albert H. Buck, of New York, President, in the chair.

The attendance was large, and the papers read more than usually interesting. The following were presented: "On the Progress of Otolaryngology, Anatomy, and Physiology," by Dr. J. J. Vermyne, of New Bedford; "On the Progress of Otolaryngology, Pathology, and Therapeutics," by Dr. David Webster, of New York; "Clinical Remarks upon 1,500 Consecutive Cases of Ear Disease," by Dr. C. R. Agnew, of New York; "On a Case of Ménière's Disease Produced by Metastasis of Parotiditis," by Dr. H. D. Noyes, of New York; "A Contribution to the Pathology of the Temporal Bone," by Dr. Thos. R. Pooley, of New York; "On Facial Paralysis Accompanying Purulent Inflammation of the Middle Ear," by Dr. Clarence Blake, of Boston; "On Trephining the Mastoid in a Case of Acute Suppurative Otitis Media," by Dr. H. Knapp, of New York; "Exhibition of a Cochlea Discharged from the Ear of a Child Two Years Old," by Dr.

John Green, of St. Louis, Mo.; "A Case of Sarcoma of the Auditory Nerve," by Dr. George T. Stevens, of Albany, N. Y.; "A Case of Supernumerary Auricle of Rudimentary Development," by Dr. H. Knapp, of New York; and a paper on "The Treatment of Certain Forms of Diffuse External Otitis."

The society elected officers for the ensuing year as follows: *President*, Albert H. Buck, M.D., of New York; *Vice-President*, Chas. H. Burnett, M.D.

Dr. J. Orne Green, of Boston, who has served continuously as Secretary and Treasurer since 1870, and has contributed so largely by his ability and labor to the success of the Society and the complete arrangement of the Volume of Transactions, declined a re-election, and Dr. J. J. B. Vermyne, of New Bedford, was elected to that office.

Committee on Publication.—Drs. J. Clarence Blake, J. Orne Green, and J. J. B. Vermyne.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.—The annual meeting of the American Ophthalmological Society was held at the Hotel Aquidneck, Newport, R. I., beginning July 24, 1879, Dr. H. D. Noyes, of New York, President, in the chair.

There was a large attendance, and an unusually large number of papers were read and discussed at the morning and evening sessions of the first day.

At the morning session of the second day the following officers were elected for the ensuing year: *President*, H. D. Noyes, M.D., of New York; *Vice-President*, W. F. Norris, M.D., of Philadelphia; *Secretary and Treasurer*, R. H. Derby, M.D., of Boston; *Corresponding Secretary*, J. S. Prout, M.D., of Brooklyn; *Publication Committee*, E. G. Loring, M.D., and D. B. St. John Roosa, M.D., of New York.

The next annual meeting will be held in Newport.

The following papers were presented: "Exstirpation in Panophthalmitis," by Dr. George C. Harlan, of Philadelphia; "The Diffusion Circles of Ametropia," by Dr. A. G. Heyl, of Philadelphia; "Ischæmia of the Retinal Vessels of both Eyes Following Facial Erysipelas," by Dr. David Coggin, of Salem, Ohio; "Case of Atrophy of the Optic Nerves in which Recovery of Vision followed the Injection of Strychnia," also "Prolapse of Retina following Iridectomy for Glaucoma," by Dr. David Webster, of New York; "Demonstrations of Drawings of Some of the Rarer Forms of Eye Diseases," by Dr. W. F. Norris, of Philadelphia; "Paresis of the Inferior Oblique Muscle," by Dr. H. D. Noyes, of New York; "Presentation of a Tumor of the Optic Nerve of the Choroid," by Dr. H. Knapp, of New York; "Plastic Operations at the Inner Canthus," by Dr. H. D. Noyes, of New York; "On Operations for Entropion," by Dr. John Green, of St. Louis; "Notation of the Angle in Astigmatism," by Dr. J. S. Prout, of Brooklyn; "Description of a Perimeter," by Dr. Peter A. Carmalt, of New York; "Exhibition of a Trial Case of Glasses," by Dr. John Green, of St. Louis; "Statistics of Cataract Extractions," by Dr. H. D. Noyes, of New York; "Black Opacity on the Cornea and Tolerant of Foreign Bodies in the Iris," by Dr. L. S. Dixon, of Worcester; "A Case of Intraocular Tumor of Rapid Growth which Resulted Fatally," by Dr. J. F. Noyes, of Detroit; "A Case of Foreign Body in the Posterior Pole of the Lens," by Dr. T. R. Pooley, of New York; "Color Blindness, Tests and Visual Standards," by Dr. B. J. Jeffries, of Boston; "Enucleation of an Eyeball, followed by Immediate Recovery in a Case of Epileptiform Disease Associated with Diabetes Insipidus," by Dr. G. T. Stevens, of Albany; "Ophthalmic Notes, a Clinical Contribution," by Dr. C. R.

Agnew, of New York; "On the Operation of Complicated Cataracts," by Dr. H. Knapp, of New York; "On the Use of Atropine in the Treatment of Strabismus,"—"A Cosmetic Application of Glasses," by Dr. Green, of St. Louis; "Influence on the Refraction of Four Years of College Life," by Dr. R. H. Derby, of Boston; "Dacrocystitis of Nursing Infants," by Dr. C. J. Kipp, of Newark, N. J.; "Case of Sarcoma of the Conjunctiva," by Dr. E. Dyer, of Pittsburgh, Pa.

THE AMERICAN DERMATOLOGICAL ASSOCIATION will hold its third annual meeting in the city of New York on the 26th, 27th, and 28th of August, 1879.

BELLEVUE HOSPITAL.—Dr. Lewis A. Stimson has been appointed Visiting Surgeon to this institution, to fill the vacancy caused by the death of Dr. John T. Darby.

THE State of Michigan now takes the lead in the matter of Boards of Health. A recent law creates practically such a Board in every city, town, and village in the State.

DR. W. B. CARPENTER has resigned his position as Registrar of the University of London after a service of twenty-three years. In recognition of his work it has been resolved by the senators, graduates, and examiners to raise a fund for the purpose of procuring his portrait and presenting it to the University.

TREATMENT OF GONORRHOEA.—At the meeting of the Nashville Academy of Medicine, April 19th, the following propositions were put forward and accepted:

1st. That gonorrhœa, in spite of the greatest care, rarely yields to treatment within from three to six weeks.

2d. That the cause of failure is due to neglect on the part of the patient to observe the rules of hygiene and diet laid down by his attendant.

3d. That the best treatment is the internal administration of alkalies, the use of bland injections, and the exclusive milk and bread diet.—*Nashville Jour. of Med. and Surg.*

TREATMENT OF ACNE.—The treatment of acne punctata with glycerine and sulphur, as first proposed by Mr. Erasmus Wilson, is indorsed by Dr. J. G. Parsons, in the *British Medical Journal*. He thinks, however, that a far more efficacious way of applying the sulphur is to dust it upon the face every night. This will often effect a cure in one or two weeks.—*Brit. Med. Jour.*

ACONITE IN PNEUMONIA.—Four cases are related in *The Practitioner* in which aconite appeared to cut short pneumonia. The drug was given on the first day, when there were crepitant râles, cough, and rusty sputa. The tincture was given in minim doses every half hour for four hours, and then in minim doses every four hours. It seemed to have a sedative as well as abortive effect. It was considered especially useful in the first stage of pneumonia.

LIABILITY IN CATHETERISM.—Dr. T. Chas. Wilson, of Dewittville, N. Y., writes regarding the liability of the Jacques soft catheter to entirely slip into the bladder, and suggests that the liability can be removed by the addition of a rim or flange or other simple device to make it more safe to entrust to the care of the patient.

DETECTION OF FRAGMENTS OF STONE IN THE BLADDER.—Dr. Wooster Beach of this city suggests the following contrivance for detecting stone or fragments of stone in the bladder:

Take a piece of ordinary iron wire and bend it so

that at two points in its length it shall touch the ears, and at another point shall be in contact with a sound inserted in the bladder for exploration. A stone struck by the sound will announce its presence to the ears by means of the conductive power of the wire with great clearness.

The contrivance, in this form, although simplicity itself, and costing but the merest trifle, yields results, he thinks, fully as good as the complicated and expensive microphone.

"SPINA BIFIDA" TREATED SUCCESSFULLY.—Dr. N. B. Slade, of McConnellsburg, Pa., writes as follows:

"Mrs. M. gave birth to a male child with an aqueous tumor attached to the lumbar region of the spine. I immediately (before the child was washed) applied a stout silk ligature around the base or pedicle of the tumor, and with my bistoury evacuated it by a free incision. I then ordered the parts to be dressed once daily and oiled well to protect the skin. In eight or ten days the dead mass dropped off and the stump healed kindly without any further trouble.

"The boy is now four years old, and is stout and hardy, and well developed. Whether operating at once had anything to do with the cure I am unable to say. But suffice it to say, if another case of 'spina bifida' falls into my hands, I shall not hesitate to repeat that which gave such happy results. If an operation is intended, why not perform it immediately?"

THE HAHNEMANN MEDICAL COLLEGE, OF CHICAGO, has been solemnly rebuked by the State Board of Health for conferring degrees upon persons who have not actually attended upon two courses of lectures at least six months apart. The College Faculty deplores its past, and promises a more conscientious future.—*Med. and Surg. Journ.*

ATROPINE IN OPIUM POISONING.—In a case of opium poisoning reported in *The Lancet*, atropine was given in doses, first of one-tenth of a grain, then, one hour later, one-quarter of a grain. The patient recovered, but as various other measures of stimulation were used, the recovery could not be laid to the atropine. The case showed, however, that Dr. John Harley is not correct in saying that all doses of atropine larger than one-ninety-sixth of a grain are depressing and injurious.

BOOKS RECEIVED.

A TEXT-BOOK OF PHYSIOLOGY. By J. Fulton, M.D., M.C.R.S., etc., etc. London. Second edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson. 1879.

THE DISEASES OF THE STOMACH: Their Diagnosis and Treatment. By S. O. Habershon, M.D., London. Third edition. Philadelphia: Lindsay & Blakiston. 1879.

LABORATORY TEACHING: OR, Progressive Exercises in Practical Chemistry. By Charles London Bloxam, of King's College, London. Fourth edition. Philadelphia: Lindsay & Blakiston. 1879.

MEMORANDA OF POISONS. By Thomas Hawkes Tanner, M.D., F.L.S. Fourth American, from the last London enlarged and revised edition. Philadelphia: Lindsay & Blakiston. 1879.

MANUAL OF THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY. By Stephen Smith, A.M., M.D., Surgeon to Bellevue and St. Vincent Hospitals, New York. Boston: Houghton, Osgood & Co. New York: 21 Astor Place. The Riverside Press, Cambridge. 1879.

SYPHILIS OF THE BRAIN AND SPINAL CORD. By Thomas Stretch Dowse, M.D. New York: G. P. Putnam's Sons. 1879.

Original Lectures.

LACHRYMAL CATARRH.

A CLINICAL LECTURE DELIVERED AT THE MEDICAL
DEPARTMENT OF THE UNIVERSITY OF THE
CITY OF NEW YORK.

By D. B. ST. JOHN ROOSA, M.D.,

PROFESSOR OF OPHTHALMOLOGY.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—When a man or a woman gets a cold in the head it is spoken of and thought of as a very trivial affection. In the ordinary course of events I have no quarrel to make with that statement. But, after all, a cold in the head is a fruitful source of very serious evils. The person who keeps himself, or herself, in such a condition that he or she infrequently has cold in the head, is safe from a great many dangers. The style of argument indulged in, in order to show that there is no danger from doing this or that dangerous thing, exposing one's self to this or that dangerous influence, is about as logical as if a soldier were to say that there is no danger upon the field of battle because he had never been shot. Thus people will tell you that they have colds in the head, have them in the summer and in the winter and at various times; sometimes, as they think, the result of imprudence, sometimes they hardly know why, and that they have never suffered from any specially evil consequences. A great deal of such statements rests upon *inexact observation*. For example, a great many people think they see perfectly, when their vision is only one-half what it should be. Again, I have very frequently seen persons who thought they heard well, when they were unable to hear ordinary conversation unless the person addressing them was near, and spoke with great distinctness. So that many of the statements about no harm having come to them rest upon *inexact observations*. Yet a great many people go through life without suffering from serious disease, frequently have a cold in the head, and die octogenarians. I grant all that, and yet, at the very outset of what I am about to say with regard to this case of double lachrymal catarrh, I will tell you that I am to lay great stress upon the etiological factor termed getting cold, and I shall attempt to show you that it is the source of most of the lachrymal catarrh with which we have to deal. I saw this patient for the first time yesterday, and the surgical operation which I then performed has so improved her appearance that you cannot have a full idea of how she looked at that time. Her eyelids were very much reddened along the margin—the ciliary margin—a term which I dislike because it is liable to be confounded with the ciliary region of the eyeball—and there was adhering to them a large quantity of dried secretion. In the corners of the eyes there was the same appearance which is now presented. In addition, there was a tumor upon the right side, over the lachrymal sac, and the eyes were overflowing with tears. These are the symptoms of chronic lachrymal catarrh. What I then did for her was to slit up the little canal which you all know passes from the lower eyelid into the nasal duct. You can easily see the punctate opening of that canal in the healthy eyelid by drawing the eyelid down, and there will be no excuse if you do not know *exactly* where that punctum is from this day on. I introduced vertically a deli-

cate probe-pointed knife, such as you here see, into the punctum, and slit the canaliculus well up into the lachrymal sac. I had much difficulty in getting into the lachrymal sac, because the disease had gone on to such an extent that it had dilated the walls of the sac; it had encroached upon the lachrymal bone beneath, and produced caries. I had difficulty in finding the opening into the nasal duct upon both sides; indeed, I did not find it upon one side on account of the large amount of carious bone.

Now let us hear her own story. She is thirty years old, and married. She says that when a small girl she had some trouble with her left eye, and recollects that there was an almost constant running of tears from it. The present trouble, and that which has given her more marked inconvenience, has existed about four or five years. There is free overflow of tears whenever she uses her eyes closely in sewing or other work, or reading, and especially when they are exposed to the wind. It is usually the fact, in connection with this trouble in the eye, that the overflow of tears is much greater when the organ is exposed to the wind than when exercised at work, even when considerable strain upon the accommodation is produced. There are many persons who have lachrymal catarrh that does not give them much inconvenience so long as they remain in the house, but the moment they go out into the air it becomes very troublesome. But in this case, it appears, it was troublesome both in the house and in the air, and, therefore, a well-grounded case of lachrymal catarrh.

Sometimes the general practitioner may mistake lachrymal catarrh for conjunctivitis, and it is very important that this error should not be fallen into, for you may treat lachrymal catarrh by the use of astringents from now until all your patience and patients are exhausted, and you will never cure it. The astringent will not get into the punctum or into the canaliculus; it will not go where it is needed; it will not do any good; and no man is justified in giving an astringent prescription for lachrymal catarrh. You might as well rub the astringent upon the outside of the cheek as to place it in the eye, for the opening is not large enough to allow it to enter the canaliculus in any sufficient quantity. Besides, there is usually stricture of the canal, there is always considerable swelling, and an astringent solution cannot enter in sufficient quantity to be of any radical service whatever.

When a patient comes to you with lachrymal catarrh, and you are sure of your diagnosis, and yet do not feel competent to either probe the puncta or slit the canaliculus and introduce a probe into the nasal duct, do nothing, but tell your patient that there is an imperative necessity for an operation which you do not feel competent to perform, if radical benefit is to be obtained. But how are you to tell whether the case is one of conjunctivitis or of lachrymal catarrh? I remember the great Von Græfe had a habit which all of us would do well to imitate, and that was, whenever a patient with red eyes sat in front of him, he at once put his thumbs over the lachrymal sacs and pressed upon them, to see whether or not muco-pus could be made to pass from the puncta. If it did, he immediately knew that, whatever else there was, lachrymal catarrh existed. Not that there was no lachrymal catarrh when he was not able to do that, for a patient may have emptied the sac and canaliculi, from force of habit just before entering the room; at all events, the important questions to be decided in every case of conjunctivitis are, the condition of the punctum, the canaliculus,

the sac, and the nasal duct. This is not a disease of the manufactory of the tears, but a disease of the conducting apparatus through which they are transmitted from the eye to the nose. If by pressure upon the lachrymal sac you can satisfy yourself in relation to diagnosis, very well; but, if you cannot, make a close examination of the conjunctiva, and see whether or not it is reddened throughout its entire extent—whether or not it is slightly more intense toward the lachrymal passages, and also look carefully at the edges of the eyelids. In this manner you will soon be able to satisfy yourselves as to whether the patient is probably suffering from lachrymal catarrh. So much stress has been laid upon this subject, that at the last meeting of the ophthalmologists of this country a paper was read upon lachrymal conjunctivitis, the writer supposing that even experienced oculists might sometimes make the mistake and diagnosticate conjunctivitis when they should have diagnosticated lachrymal catarrh. It is therefore worth your while, as general practitioners, to be upon your guard against such a mistake.

I did not give this patient an anæsthetic, and she suffered considerable pain; but she has exhibited her confidence in the treatment by coming here to-day and allowing us to examine her eyes. Let us return for a few moments to the history of her case. She says that after suffering for a short time, when a small girl, she entirely recovered from the trouble in her left eye. Some three or four years ago the trouble reappeared, but we do not obtain any history of its having been excited by cold in the head, and indeed the only apparent cause we succeed in reaching is the fact that she was just then taxing her eyes severely upon fine sewing.

I will now return to my starting-point, and will give my opinion regarding the origin of lachrymal catarrh. I believe that it originates chiefly in naso-pharyngeal catarrh, and I believe that naso-pharyngeal catarrh originates chiefly in persons who are not very vigorous, and who live under improper hygienic conditions, and in persons tolerably strong, but who also live under improper hygienic conditions. No person in a physiological state of health, unless exposed to extraordinary influences and severe changes of temperature, will get naso-pharyngeal catarrh. Let me name over, as my memory suggests, the kind of people who have naso-pharyngeal catarrh. Any person whose system is tainted with syphilis is liable to naso-pharyngeal catarrh upon the slightest provocation. For, you must not forget that syphilis is a blood-poison, and it is also a disease which may be excited into action by improper hygienic conditions, and often by slight exposures. A man working in a damp cellar, for instance, who has syphilis in his system, may have a sudden outbreak of symptoms indicating the development of gummy tumor or syphilitic deposit at the base of the brain, about the auditory nerves, or along the origin of the third pair; the provocation being the exposure to cold while at work. This is the reason why the practitioner should look upon syphilis as a disease that may manifest itself in any part of the body, and should take great pains with regard to the general condition and surroundings of his patient. The reason why many get well of syphilis without much special treatment is found in the fact that they have abundance of good food and live under proper conditions after the poison enters the system.

Again, little children who are improperly fed and clothed, and perhaps inherit a consumptive diathesis,

get naso-pharyngeal catarrh upon the slightest provocation.

Again, those people who live improperly with reference to food and drink are very liable to this affection. The man who drinks a great deal of alcohol necessarily does not care for much solid and nutritious food, and in consequence his system becomes depreciated, and he is apt to get naso-pharyngeal catarrh.

Again, the class of persons who live and work indoors most of the time, who do not get a proper amount of physical exercise, who do not bathe themselves sufficiently with cold or lukewarm water and groom themselves properly—whose skin does not react quickly after sudden exposure, those people are very frequently suffering from naso-pharyngeal catarrh. You scarcely ever, probably never, hear of an athlete, or a country gentleman who superintends his own farm, and at the same time taking the greatest personal care of his general condition, having naso-pharyngeal catarrh.

The fundamental thing is to have a sound body by all the rules which you or I can or do learn. After I was away from maternal care I was not brought up to take a cold bath daily, but I soon began to appreciate what it will do for a man slightly built and obliged to live indoors a large part of the time. Since I have seen what attention to the skin has done for me and can do for others, I never can sufficiently impress upon medical students that, under ordinary circumstances, the natural condition of every human being demands that he should have his skin well groomed every day. Not with much soap necessarily, nor necessarily with a large quantity of water, but he should be well rubbed in order that his skin may be kept in a proper condition. I am confident that a great deal of lachrymal catarrh can be avoided in that manner. In some cases, however, the disease advances from the other direction, and a conjunctivitis goes on until it develops a lachrymal catarrh. The same remarks which I have made regarding naso-pharyngeal catarrh are to a certain extent applicable to conjunctivitis; not so much, however, for, as I have already told you, a man may get conjunctivitis from overworking the eyes, or from exposure to wind and dust when he is in a good condition of health.

How shall we treat these cases when they have the condition which was present in this woman's case yesterday. She is anæmic. I might have said to her, you had better go home, take cod-liver oil, iron, etc., and do so and so, all of which would be proper for a patient in her condition; but all that would not cure her lachrymal catarrh. The surgeon must interfere. A condition has been reached which cannot be cured by general medication. There must be positive dilatation of these parts; these obstructed passages must be so relieved that they can carry off the natural secretion. That is done by a simple procedure, which I propose to do before you as far as possible. The history of the steps which have led us to this procedure is very interesting. The old style of treatment was to cut into the lachrymal sac from the outside, introduce a probe or canula, and leave it permanently. In that manner a permanent disfigurement was caused, which, particularly in females, was regarded as so great that many of them preferred to suffer the lachrymal catarrh rather than to submit to such a permanent blemish. Besides all that, it did not cure the people in probably more than fifty per cent. of the cases. No longer ago than sixteen years, when I was house-surgeon in the New York Hospital, it was the general opinion there that treatment of lachrymal

catarrh was one of the opprobriums of the profession. I do not say that such was the advanced opinion, for probably at the Eye and Ear Infirmary at that time the surgeons were treating the disease rationally. But if we go back as far as twenty-five years, I think a period will be reached when the treatment of lachrymal catarrh was pre-eminently unsatisfactory among all kinds of surgeons. At the present time my individual experience is such as leads me to believe that it is pre-eminently satisfactory. There are certain cases that come to my office which I dread to meet. But I am always glad to see a patient enter who has lachrymal catarrh, because I feel more or less sure that I can do a great deal, except in extraordinary instances, to relieve his condition. I think that something has already been done for this woman in the last twenty-four hours by the surgical operation which I performed yesterday. It is an operation which every one of you who is fit to open an abscess can learn to perform.

How was this method of treatment reached? Mr. Bowman, of London, the physiologist of former days, suggested that the canaliculi be opened, that it be converted into an open canal. He did that with scissors, having first probed it, and then passed a probe into the nasal duct. We now use a knife to open the canaliculus, and we do not resort to the preparatory probing in the ordinary cases. Yet, the principle which Mr. Bowman enunciated is still carried out in all places where ophthalmic disease is treated according to the advanced opinions of the nineteenth century. You will hear of Stilling's method of cutting through the stricture, and you will hear of destroying the lachrymal sac and other procedures which become necessary; but it is my conviction that in a very large percentage of cases—so large as to render the others completely exceptional—you will do very well if you learn to dilate the canaliculus and probe the nasal duct. If you will patiently and persistently treat cases in that way, you will get very good results indeed. Children should be put under the influence of ether before the operation of slitting the canaliculus is performed; but you may learn to probe children's eyes without an anæsthetic. Lachrymal catarrh in children is usually recovered from very rapidly. One probing is frequently sufficient in very young children to effect a cure of a mild case of lachrymal catarrh.

It will be observed that I have not said anything about lachrymal abscess or concerning the formation of lachrymal fistula. These are the consequences of lachrymal catarrh; they are the second stage in the inflammatory process, exactly as purulent conjunctivitis is the second or third stage of catarrhal conjunctivitis, and the treatment is essentially the same as in the catarrh. Get the passages into such a condition that nature can do the work of carrying off the tears, and the abscess will take care of itself. I would like to speak of acute lachrymal abscess, but my time is now too limited. I will simply say that you must be upon your guard lest you consider acute lachrymal abscess, supervening upon a natural catarrh, as it usually does supervene—you must be careful, I say, lest you regard it as a case of facial erysipelas, and proceed with local applications, such as lead and opium, or, with constitutional ones, iron, and so forth. Please to remember that the history of the case is an important factor in diagnosis in those instances, and you should determine whether or not the patient has had a weeping eye for some time previous to the acute attack—for there will be no lachrymation when the parts are greatly swelled—and you can usually make a correct diagnosis.

[The patient was then placed in position, and Bowman's probes were introduced into the nasal duct.]

So much dilatation has been made by the progress of the disease, that probe No. 5 can be introduced quite readily. I introduce it first vertically, then horizontally, and then again vertically, and as you see it is now in the nasal duct.

In the left eye I yesterday reached a carious cavity, but did not succeed in passing the probe into the nasal duct; but I have now reached the duct, the probe has entered it, and the patient is in the condition of being treated. These probes may remain in from ten to thirty minutes, and I do not think much is to be gained by allowing them to remain longer at any single sitting. The principle of treatment is dilatation of a canal whose calibre is filled by a swollen mucous membrane. The gentlemen at the hospital often ask, "How much force do you use in introducing the probe into the nasal duct?" It is impossible to answer that question. I cannot answer that question any more than I can by words teach a man how deep to cut in order to get into an abscess. It requires the *tactus eruditus* of which the ancients spoke so much. It is simply a matter of experience, and it is in that way only that you will learn how much force to employ. The only principle I bear in mind in probing these passages is to be sure that my probe is in the canal, and then I use as much force as is necessary to go through. It all resolves itself into the advice given by David Crockett: "Be sure you are right, and then go ahead." Be sure your probe is in the nasal duct, and then go ahead. The canal is not like the urethra. If you have had experience in sounding the urethra, you know there is no care which should not be exercised, nothing which you can neglect unless at the expense of safety. But in this instance you have a different condition of things. You are here dealing with a bony canal, except as to the outer side, and if your probe is once in that canal you can go on with comparative safety. Now and then, I know, we treat stricture of the urethra differently; but if you propose to treat such strictures by gradual dilatation, you know you must be very careful with reference to the exact course in which your instrument is moving.

One point further. How many of these cases go about without treatment! A case of lachrymal catarrh which has persisted for weeks or months should be treated, not only for the present relief, but also to prevent the formation of lachrymal abscess, which is extremely painful, and which may lead to very considerable personal inconvenience, not only to the physician, but to the person suffering from it. Therefore I say, that if you feel sure you have a case of lachrymal catarrh, and it is established that it is not a case in which the condition will pass away within a few days, treat it, and by the method just described.

WOMEN IN HARVARD MEDICAL SCHOOL.—A meeting of the Board of Overseers of Harvard University was held some time ago to decide as to whether they should accept a bequest of ten thousand dollars on condition that women be allowed admission to the medical school. It was voted to decline this proposition. At a subsequent meeting, however, a resolution was passed asserting that, under suitable restrictions, it would be expedient to allow women to be instructed in the medical school. Harvard is thus put on record both for and against the medical co-education of the sexes.

Original Communications.

A CASE OF OSSEOUS TUMOR IN RIGHT ORBITAL CAVITY SUCCESSFULLY REMOVED, WITH PRESERVATION OF THE SIGHT.

By VAN S. LINDSLEY, M.D.,

PROFESSOR OF PHYSIOLOGY AND DISEASES OF THE EYE AND EAR,
UNIVERSITY OF NASHVILLE AND VANDERBILT UNIVERSITY,
NASHVILLE, TENNESSEE.

MR. BILLS, of Verona, Marshall Co., Tennessee, consulted me last February about his eye. I found exophthalmos of the right eye existing to a very marked extent, the left being normal. Two years ago he noticed that the eye seemed more prominent than the left, and some months afterward he suffered intense pain behind the globe, which continued for, as he expressed it, "one hundred hours." During the pain a swelling occurred at the upper and inner side of the orbital cavity, and finally broke, emitting matter. The pain then ceased and swelling apparently receded. Again, in a few months, his friends noticed that the eye was getting prominent. It has been steadily and gradually pushed forward up to the present time, May 1, 1879, and presents the following appearance and condition:

The exophthalmos is very great, the ball being pushed beyond the circumorbital ridge, so that the lids do not entirely cover it. The cornea is bright and healthy, and also the general conjunctival covering, except the lower half, which is redundant and highly congested. At the junction of the roof and inner side of the orbital cavity there can be seen and felt a distinct nodular swelling about the size of a forefinger knuckle. When traced as far as the finger can explore, it is found to pass back far into the orbit behind the ball, and to become larger as it goes. The skin is loose over the tumor, and, excepting some enlarged veins, healthy.

The sight of the eye is good, considering the amount of tension and pressure so long exerted on the optic nerve. The patient says it is as good as that of the other eye, but on examination I found he could only read No. 12 Jaeger's types, for distance Snelling's No. 40.

The movements of the eyeball are somewhat impeded, and he sees double only at certain times.

Dr. Nowling, now of this city, and formerly of Marshall County, having been Mr. Bill's family physician, was consulted also in reference to the case. After examining the case carefully we determined on an operation for removing the tumor, which was accordingly done, with the assistance of Drs. Nowling, Drake, Rogers, and Sharber, of Columbia. Ether was selected as the anesthetic, and Squibbs' preparation used freely and faithfully for one hour and fifteen minutes, without producing the proper effect. There being no prospect, apparently, of securing anesthesia by this mode, chloroform was substituted, and soon the patient was breathing stertorously after inhaling about one drachm.

An incision was made with scalpel in the crease of the upper lid, commencing at the inner upper orbital angle about half an inch long and over the tumor. After the division of the various layers down to the tumor, the finger was passed down, separating the tumor from the eyeball and surrounding parts, and tracing it back as far as the upper border of sphenoidal fissure,

where it seemed to have its original attachment. The neoplasm was so firmly attached to the periosteum of the orbital roof, that the periosteum had to be ruptured and peeled back in order to force it from its upper attachments. It was found now that the neoplasm was far too large to be removed through the opening already made in the lid, so that by means of an ordinary steel elevator and the finger, I ruptured the tumor and removed the anterior half by piecemeal. The remaining portion was cut loose from its attachment to the bones by means of long curved scissors. The bleeding was very profuse, and although there had necessarily to be considerable pressure on the ball, the muscles and optic nerve were preserved intact.

A few minutes after removal of the tumor the eye was easily replaced in its natural position, but soon afterward such swelling took place as to cause the eye to protrude worse than ever, and the only way we could repress it was to put several stitches in the margins of the lids. This, with a well applied roller-bandage, held the eye in place and controlled the swelling.

After a few days the stitches were removed from the lids and the ball found to be movable, free from inflammation, and sight as good as before operation. The wound through which the tumor was removed healed by first intention and gave no further trouble. The patient has written since returning home that the eye continues to improve.

The tumor we found to be of an elongated form antero-posteriorly, and compressed above and below by the eyeball and roof of the orbit. It consisted of a strong investing membrane resembling periosteum both in texture and strength, and was loosely connected with its surroundings excepting the roof of the orbit, where the periosteum and membrane of the tumor seemed continuous, or one and the same. The interior of the tumor was a friable cancellated bony tissue, which was capable, as stated before, of being broken to pieces by the elevator, used in removing parts of the growth. Bone tumors occur occasionally in the orbit as outgrowths from some portion of the lining periosteum, and may be either of the spongy character as related above, or of the hard eburnated kind.

REPORT OF A CASE OF HYDROPHOBIA (RABIES) SUCCESSFULLY TREATED WITH CURARE.

By DR. AD. OFFENBERG,

WICRATH (RHEINPREUSSEN.)

(Translated by S. W. WILLIAMS, M.D., Bellevue Hospital.)

ANNA HEITMANN, a servant-girl in the employ of a peasant named Hense, while passing the yard of one Jürgens, a neighbor, on the 28th of July, 1874, was bitten in the left heel, through the stocking, by a spitz dog.

The dog had been, during fourteen days, chained near the highway, for the protection of linen which was bleaching in the yard. The girl was in the habit of passing the house several times daily, and had won the friendship of the dog by throwing to him pieces of bread. It seemed strange, under these circumstances, that the animal should have bitten her without the slightest provocation.

Overlooking the account given by the servant-girl of the subsequent behavior of the dog as possibly exaggerated, we have the statement of the owner, supported by several neighbors, that the dog was not

naturally ugly; that upon the same forenoon, and shortly after he had bitten Anna H., he was seen to be very uneasy and to run round in circles as wide as his chain would permit. He pulled at and bit the chain, and was constantly springing up against the neighboring wash-house. At mid-day, the condition of the dog being much worse, the owner sent for a veterinary surgeon, who, upon the mere statement of the animal's condition, pronounced him to be mad, and advised that he be immediately shot.

This unusual and striking behavior of the dog raises the strongest suspicions of hydrophobia—a suspicion which is justified by the fact that, in the summer of 1874, the village was repeatedly thrown into excitement concerning dogs that were either suspected of being mad or were so in reality. In the very beginning of the summer a strange dog, showing signs of hydrophobia, had wandered about the place, and had bitten a number of other dogs, which were straightway killed by order of the police. At the end of June the dog of Wessels (a peasant of the place) grew sick and restless, ate nothing, wandered about in the neighborhood, bit some of the cattle and several of the residents of the farm. Schuler Wessels, a man thirty-four years of age and proprietor of the estate, was bitten in the right hand. The dog was caught and confined, and a few days later died. The veterinary surgeon who made the autopsy pronounced the death of the dog to have been the result of hydrophobia.

Wessels was persuaded by the surgeon to have the wound in his hand cauterized with nitrate of silver, and to take for several days, as a prophylactic, a remedy the composition of which was unknown. When Wessels learned that Jürgens's dog had bitten Anna Heitmann, he determined to procure for her the remedy by means of which he believed himself to have been secured against all danger of an attack of hydrophobia. On the 29th of July, while writing a letter for this purpose, he was taken suddenly very ill, and was unable to finish the letter. From this time the signs of hydrophobia went on developing, and he died early upon the morning of July 31st.

A few days later it was found necessary to kill a jackass belonging to Wessels's farm. He had been bitten by the same dog, and had grown very uneasy, and disposed to bite every one who came in his way. He was especially inclined to bite the calves.

In view of the facts now stated, there seems to be no doubt but that Wessels's dog was suffering from hydrophobia; and, since the courtyards of the two men—Wessels and Jürgens—were separated by only about 800 paces, it is altogether probable that Jürgens's dog, four weeks before his sickness, came in collision with the other dog as he was wandering about, and was by him bitten and infected.

As already mentioned, Wessels was taken sick on the 29th of July—that is, upon the day after Anna H. was bitten. Upon the 30th of July the two physicians of the neighborhood, Drs. Hölker and Wilkinghoff, attended Wessels at his house. Anna Heitmann availed herself of this opportunity to consult them in regard to her own injury. When it became known that the master of the house was suffering from hydrophobia, the servants were thrown into the greatest consternation, and many of them immediately left; thereupon Anna H. consented to remain for a while and assist in the housework. She was thus a witness of the severe convulsions and delirium of the sick man, and also of his death.

On the 30th of July, two days after the servant-girl had been bitten, Dr. W. found upon her left foot,

between the tendo-Achillis and outer malleolus, an excoriated place about the size of a ten-cent piece, of a reddish, bloody appearance, from which oozed a reddish fluid. The doctor ordered a warm foot-bath for the purpose of cleansing the wound, which had thus far received no treatment beyond simple dressing with a piece of linen. He also prescribed a concentrated solution of caustic potash, and directed that with this the girl should herself cauterize the wound.

The apothecary was at a considerable distance, so it was not until the lapse of several hours that she was able to apply the caustic. This she did in the following way: having soaked a piece of linen in the solution, she laid it repeatedly upon the region of the wound, in this way producing on the outer side of the foot a deep eschar almost as large as the hand.

A few days later she tried a course of treatment very highly esteemed in that region as a preventive to the outbreak of hydrophobia. The treatment consisted in going twenty-four hours without food, drink or sleep, and at the same time taking a mixture composed chiefly of a concentrated solution of chloride of sodium, to which were added certain acrid juices of plants. According to the statement of the patient, her mouth and throat were sore when she began to use this remedy, and the acrid fluid therefore caused severe burning pain. The girl said her tongue was swollen so that she could scarcely move it, and that the acts of speaking and swallowing were attended with great pain. Since all attempts to drink caused great distress, she objected to taking the proffered medicine, and gave expression to her aversion by gestures. The people of the house, who had grown timid and suspicious on account of the recent death of their neighbor, thought the actions of the servant-girl betokened dread of water and convulsions, and sent for the nearest doctor, in the belief that hydrophobia was already developed. The true state of the case remained unknown to the doctor, since the patient could not make herself understood, and the inmates of the house, intentionally or unintentionally, remained silent concerning the remedy which the girl had been taking. Dr. Hölker, who did not make a careful examination of the mouth and throat, saw in her actions only signs of dysphagia and convulsions. These appeared whenever she attempted to drink. The doctor prescribed for her a preparation of morphia. Four or five days later all these unpleasant symptoms and the gastritis, which had existed at the same time, had completely disappeared. The girl was very nervous in regard to her condition, and returned to her home. The wound upon her foot was at first treated with carbolic acid in solution, and then with basilicon ointment, since Dr. W. proposed to keep it suppurating for at least three months. This mode of treatment, however, was incomprehensible to the pastor of the place. He declared the physician a quack, and, fearing lest the girl should lose her foot, and in order that she might come under more "intelligent" treatment, brought about her reception on the 8th of October, into the Franziskus Hospital, in Münster, i. W.

Anna Heitmann, unmarried, 24 years of age, comes of a peasant family in the parish of Herbern. The nine grown-up brothers and sisters and the parents enjoy the best of physical and mental health. No disease of the nervous system was ever known in the family. She herself has never been seriously sick. The catamenia began in her fifteenth year, and although, during the last year and a half, more abundant and more frequent than formerly, they have run

their course without any difficulty worthy of mention. She is a well-nourished, strongly built person, and appears to be in vigorous health. Her educational acquirements are below the average for persons of her condition in life. She displays a clear mind and good disposition, and her genial manner obtains for her the good-will of all who come in contact with her. She says she is in constant dread of the outbreak of hydrophobia, and that by thinking so much about the disease which threatens her, she is frequently startled from her sleep at night.

On the outside of the left foot, extending from the tendo-Achillis over the dorsum, is a reddish granulating wound surface about the size of the palm of the hand. Here and there the edges are undergoing cicatrization, and near the borders of the wound are a few pustules and superficial ulcerations. On account of the size of the wound it was considered unadvisable to continue the use of irritating applications; and by the 16th of October, under a simple dressing, the granulating surface had become much smaller. On the 10th of October the menstrual flow began; it was not accompanied by any disturbance of the general health, and by the 16th of October it had nearly ceased. She passed the 16th of October in her usual way; was up and about the ward most of the time; neither by the physician, nurses, or neighboring patients was any change observed in her manner until evening. At 6 P.M. she ate her supper with a fair appetite; about seven o'clock she seemed rather nervous; a jesting remark, intended to soothe her, not only failed of its purpose, but also caused her to cry, although, as she herself later admitted, there was no sufficient reason for this in what had been said. The other patients of the ward were astonished at her behavior, and rebuked her for it. In addition to this abnormal sensitiveness she was suddenly seized, about 8 P.M., with an attack of dyspnoea, directly caused by an attempt to drink. She was unable to swallow any of the water, and now convulsions followed one another in quick succession. At their first appearance it was inferred that the patient was suffering from hydrophobia, and this suspicion being confirmed by nurses who had already seen cases of hydrophobia, she was at once isolated from the other inmates of the ward. I reached the patient at 10.45 P.M. She suffers from extreme uneasiness and anxiety; cries and moans constantly; is fully convinced that she has hydrophobia, and that there is no hope of recovery. She complains of pain in the upper mammary and anterior cervical regions, especially severe in the region of the larynx and of the hyoid bone; pressure at these places seems to increase the pain. She also has severe pain in the throat, yet nothing abnormal can be seen—neither redness nor swelling. In making the venturesome experiment of inserting my index-finger deeply down her throat, I observed a marked decrease of sensitiveness in the soft parts, for, when I irritated these parts with my finger, no reflex movements were aroused. The secretion of saliva is not increased. There are no vesicles of Marochetti under the tongue. The temperature of the body is only slightly raised. Not the slightest change can be detected in the wound on her foot, yet she sometimes has pain in it which extends as high as the knee. Extreme muscular restlessness pervades the whole body; the muscles of the extremities especially are the site of slight unremitting convulsive movements. The pulse at the wrist cannot be counted, owing to the jumping of the flexor tendons. At intervals of one or two minutes occur inspiratory spasms and general clonic convulsions. These spasms are ushered in by

short, groaning sounds, produced by the forcible passage of air through the narrowed glottis. The chest, at the same time, assumes the position of inspiration and becomes more fully expanded; the shoulders are drawn upward, the head backward; the sterno-cleido-mastoid muscles stand out as thick and firm bands; other muscles of the neck are quite prominent. The thorax remains fixed in the position of inspiration for ten or fifteen seconds, during which time the rest of the body is in a state of severe clonic convulsions; the arms are tossed wildly about, or are fastened convulsively upon the proffered hand. During these convulsions she suffers from great dyspnoea: constriction in the breast; a feeling as though the larynx were drawn together; there is also pain in all the limbs.

If the convulsion remits a little, the breathing, at first superficial and rapid, becomes more quiet. A short time before a convulsive attack begins, she is warned of its approach by an increase of her uneasiness. Every attempt to drink arouses a feeling of constriction in the throat, and it is only with the greatest effort that she is able to swallow a little fluid, and these attempts to swallow are always followed, in a few seconds, by an inspiratory spasm.

10.30 P.M.—Subcutaneous injection of 0.02 (gr. $\frac{1}{2}$) morphia, and inhalation of chloroform.

10.45 P.M.—Within the last half-hour the patient's condition has in so far grown worse that the above-mentioned convulsive attacks are more severe and frequent, that great photophobia has developed, and that the symptoms of real hydrophobia now exist. Her thirst is extreme. She is now utterly unable to drink; heretofore she has been generally able, although with the greatest effort, to swallow a little liquid. As the glass touched her lips she trembled, stared confusedly around, and, having been raised up that she might more easily drink, threw herself back with great force upon the bed. This difficulty in drinking she attributed to the odor of the fruit-juice that had been mixed with the water; but the same symptoms were aroused by every attempt to drink clear water. Indeed, the mere approach of the glass to her mouth caused her to shudder, and called forth gestures of the strongest opposition. Generally, every such attempt was followed immediately by a severe convulsion.

During the intervals the anxiety and precordial uneasiness had markedly increased. She requested to have the prayer* of the death-bed read to her.

After one very severe and painful attack she cried aloud for different members of her family, and asked bewildered, "Where am I?"

The injection of morphia had exerted no sedative influence; on the other hand, the disease had grown worse. The dose of morphia was therefore not repeated. The inhalation of chloroform, carried to the point of stupefaction, gave great relief, yet each time the anæsthetic was thus used it seemed to me that the next respiratory effort aroused a fresh attack of convulsions.

Considering the diagnosis of hydrophobia established, I believed there should be no further delay in using curare. There happened to be in the hospital a solution of this drug 0.5 : 10.0 aq. dest. filtered (gr. $\frac{7}{4}$: 3 ijs.).

I had proved the effectiveness of this solution not only upon frogs, but also a year previously in two cases of traumatic tetanus. These cases ended fatally, but the observations then made urge to an active use

* Sterbegebet.

of this poison. In the first case 0.002 to 0.02 (gr. $\frac{1}{3}$ to $\frac{1}{6}$), curare was injected at intervals of five hours without the slightest apparent effect. In the second case 0.015 to 0.06 (gr. $\frac{1}{4}$ to $\frac{1}{2}$) curare was injected at intervals of three or four hours. After the last dose of 0.06 there was a brief relaxation of the tetanic symptoms.

Having now determined upon the use of curare, at 10.45 P.M., about three hours after the sudden outbreak of the attack, 0.02 (gr. $\frac{1}{6}$) curare was hypodermically injected; fifteen minutes later, there having been no appreciable effect, the dose was repeated. The general muscular tremor, which had existed all along during the intervals between the convulsions, became gradually less, and finally almost disappeared. The pulse at the wrist was now easily felt and counted. It was generally 80 or 90 beats per minute; after a convulsion 100 to 104; beyond this there was nothing remarkable about it.

12 P.M.—The intensity of the respiratory spasms continues the same, but the duration of the intervals between them seems to increase. The intervals average about two minutes in length.

The photophobia is intense. The patient says, when she sees the flame of a candle it seems as though she were looking directly at the unclouded sun. Notwithstanding that all bright light was kept away by means of screens, she said the light was too bright. Even after all lights had been removed she complained bitterly if a ray of light reached the darkened room through the open door.

The auditory sense seemed very acute; words spoken in the neighboring room, intentionally in a low voice, which one would not have thought it possible for her to hear, she fully understood.

Repeated efforts to drink were not only unsuccessful, but caused severe convulsive attacks.

12 P.M.—Subcutaneous injection of 0.08 (gr. $\frac{1}{3}$) curare. The hypodermic injections were dreaded by the patient on account of the pain caused by the puncture; but she was easily persuaded to allow it to be done. It became more and more evident that the pauses between the convulsions were increasing in length. She now complained of severe lancinating headache, which was alleviated by cold compresses.

October 17th, 1 A.M., 0.08 (gr. $\frac{1}{3}$) curare was injected. The intervals between the convulsions are longer, extending to five minutes; the convulsions, however, are as severe as before. Her anxiety and uneasiness is much less intense. She herself perceives the improvement in her condition, and no longer refuses to believe that there is hope of recovery.

2 A.M.—0.03 (gr. $\frac{1}{3}$) curare injected subcutaneously. During the intervals between the convulsions the patient feels tolerably well, complains only of headache. She is less irritable and emotional. The sensation of constriction in the chest has disappeared. The pain in the throat and neck is much less severe. She is cheerful, and thinks that she will completely recover.

2.30 A.M.—0.08 (gr. $\frac{1}{3}$) curare injected. She is unable to swallow pieces of ice, and every attempt to do so is immediately followed by a severe convulsion. The intervals are now sometimes ten minutes long. She is remarkably communicative, indeed, loquacious. She gives long accounts of her early life. She told in a sprightly tone how she had cured herself and other persons of scabies by a salve which she prepared from fat oil and snuff. She joked about her own condition, and, if interrupted by a convulsion, would pick up the conversation when it had passed and go on in the same lively manner. Urged by her great thirst,

she was always anxious to make one more attempt to drink, and was always unsuccessful.

3.10 A.M.—No convulsion having occurred during the last fifteen minutes, one was observed, which in severity and duration, was much less severe than any that had previously occurred. Ten minutes later, in compliance with her earnest entreaty, a glass of water was given to her, but it had scarcely touched her lips before she shuddered and passed into a severe convulsion.

3.20 A.M.—0.03 (gr. $\frac{1}{3}$) curare was injected. Shortly before this the patient had complained of a peculiar weakness in her right shoulder; immediately after the injection she said all her limbs were growing lame. Intense symptoms of paralysis were now very rapidly developed—within one minute. She was no longer able, unassisted, to raise herself in bed. She could not move the upper extremities at the shoulder or elbow, nor the lower at the hip or knee. Voluntary movement of the fingers and toes was possible only in a slight degree. Respiration was not involved. She continued to be cheerful and talkative. The extremities were rubbed with spir. sinapis, and compresses soaked in this were placed upon the throat and breast.

3.30 A.M.—A mild convulsion occurred, the thorax expanded as in the earlier attacks, but remained in this position only a few seconds; meanwhile there were slight spasmodic movements in the fingers, then respiration again became normal.

3.45 A.M.—There occurred a short, feeble convulsion which lasted but a few seconds. After it had passed, and she had breathed superficially a few times, the respiratory movements ceased altogether and without the occurrence of a convulsion. Respiration was, however, at once restored by strong pressure upon the abdomen and thorax.

4.15 A.M.—There occurred a short convulsion which seemed to have been cut short, and the patient thinks she arrested it by force of will. After this convulsion the same complete arrest of respiration occurred, and rhythmical compression made three or four times on the chest and abdomen sufficed to restore normal breathing.

At twenty-three minutes past four occurred the last convulsion that she had; it was scarcely more than an irregular convulsive inspiration. For several hours the paralytic phenomena continued, and extended to the organs of speech. The patient, who had been so talkative, could now answer questions only in a weak voice. Movement of the eyelids was difficult, and they opened and shut slowly. The respiratory movements now became weaker and more superficial, but were not interrupted.

When the extremities were touched, pressed upon, or moved, she felt severe pain. Especially painful were the places where the hypodermic needles had been inserted. There was still severe pain in the head and in the region of the larynx and hyoid bone; she could not move her limbs; there was no tendency to sleep. Toward 7 A.M. the skin became moist, and, by means of hot bottles and thick covering, profuse diaphoresis was induced.

7.30 A.M.—The paralytic phenomena having become somewhat less severe, she drank a glass of water without difficulty or bad results. From this time on she was able to drink whenever she desired to quench her thirst, which was extreme.

8 A.M.—The patient was carefully placed in a warm bath in which she remained ten minutes. The bath was well borne. The paralytic phenomena still continue in part.

About mid-day the paralysis became less marked, and during the afternoon disappeared almost entirely; a feeling of extreme weakness alone remained. The pain in the head and the sensitiveness of the arm continued. The tissues immediately surrounding the places where the hypodermic needle had been inserted were swollen and painful on pressure.

At noon the temperature was 38.6° C. ($101\frac{1}{4}^{\circ}$ F.); in the evening, 38.3° C. (101° F.); pulse, 84; moist skin; moderate thirst. No difficulty in speaking; state of mind more cheerful. At 6 P.M. there began to be noticed spasmodic twitchings of the muscles of the arms, at first isolated, later more general. The patient herself drew attention to the fact that immediately after drinking an involuntary spasmodic inspiration occurred; this phenomenon she intentionally reproduced several times. The chest now expanded, just as it had done in the mild convulsion on the preceding night, and remained several seconds in the position of inspiration. The muscular movements became more marked. There was a slight feeling of constriction in the chest.

At 9 P.M. these convulsive phenomena ceased, and she fell into a sound and quiet sleep, out of which she awoke at 1 A.M., October 18th, in a severe chill. This lasted three-quarters of an hour, and disappeared after she had taken some hot drink. She slept no more during the rest of the night. No further paralytic or convulsive phenomena were observed. Late on the morning of October 18th occasional convulsive movements were noticed in the muscles of the arm. Patient complained of headache and photophobia. About 11 o'clock, without any special cause having been discovered, she suddenly came into a condition of very complete paralysis, ushered in by a feeling of extreme weakness. She was scarcely able to move a finger. With the eyes shut or half open she lay there quiet and motionless. To questions, she either made no reply, or did so, hardly moving her lips, in a voice almost inaudible. Respiration was very superficial. Temperature, 38.1° C. ($100\frac{3}{4}^{\circ}$ F.); pulse quiet and normal; skin moist. She recognized relatives who came to see her, but was unable to talk with them. This paralytic condition, after continuing an hour with undiminished intensity, disappeared completely in the course of the afternoon.

Redness and swelling had become more widely extended on the dorsal side of both forearms, and the skin in the upper two-thirds seemed erysipelatously infiltrated. Similar infiltrations, about the size of a silver dollar, existed in the lower extremities at the points where the hypodermic needle had been inserted. The patient avoided, as far as possible, all movement of the body, and especially of the arms. She had taken pills of aloes and pulv. glycyrrh. comp., and toward evening there occurred free catharsis. Since noon there had been developed, in addition to the pain in the head and neck, pain also in the sacral and dorsal region.

About 7 P.M. the subsultus began again, at first isolated, soon more general and severe. Attempts to drink aroused afresh the inspiratory spasms. After nine o'clock these occurred at intervals of two or three minutes. The subsultus was more severe, and there was greater uneasiness, thirst, and photophobia. In order to prevent further unfavorable change in the patient's condition, 0.08 (gr. $\frac{1}{3}$) curare was injected at 9.30 P.M., and it was ordered that, for the present, she should have nothing to drink. In fifteen minutes the effects of the curare were apparent. Her anxiety disappeared, she became once more cheerful and talkative; the subsultus ceased; the inspiratory spasms

occurred less frequently, and in the course of an hour disappeared entirely. At midnight, in compliance with her earnest request, she was given something to drink. An inspiratory spasm occurred; and, just as had happened on the forenoon of October 18th, was immediately followed by extreme paralysis of voluntary movements. Respiration was only slightly affected—it became a little less energetic. The paralysis continued for an hour with unabated intensity, and then disappeared.

In the early morning of October 19th the patient slept three hours; a little later she complained of headache, pain in the abdomen (aloes), and sensitiveness to bright light; temperature, 36.7° C. (98.06° F.); pulse, 80. Subsultus was occasionally observed during the forenoon. Twice after drinking there was spasmodic retching.

At 4 P.M. the paralysis, already several times observed, again occurred, and it was also upon this occasion ushered in by a convulsion, which was the result of fright caused by a heavy thunder-storm. Two hours later patient was again in the condition in which she had passed the forenoon.

8.30 P.M.—Temperature, 37.0° C. (98.6° F.); pulse, 70. Having slept quietly from this time till 1 A.M. she was seized with a chill, which lasted half an hour, and was marked by severe chattering of the teeth. During the next few hours spasmodic retching occurred repeatedly after drinking. From five till six she slept quietly.

The morning of the 20th brought no change in her condition. Headache and occasional convulsive movements still continued, except during two hours while the patient was sleeping. In the afternoon there was slight headache, but no muscular tremor. She declared herself to be better than she had been at any time during the last ten weeks. Having taken since the 16th nothing but water and occasionally a little wine, she now, October 20th, ate bread and milk with relish. She attempted to read from a prayer-book, but discovered that she was unable to make out a single word; the letters seemed to move about in circles. The superficial redness and swelling of the extremities due to the hypodermic injections is diminishing.

With the exception of a chill, which lasted about ten minutes, the patient slept quietly nearly the whole night of the 20th and 21st, and on the following day her condition was very satisfactory. There was no pain; no sick feeling; the appetite was good; she was cheerful; in short, she complained alone of general weakness; a certain sensitiveness of the eyes to bright light, and a scintillation of the letters before her eyes whenever she read.

In the afternoon she ventured to get up, but was compelled, after a few hours, by a severe headache, to return to bed; cold compresses applied to the head relieved the pain. On the night of the 21st and 22d she slept quietly five hours, until one o'clock, when she had a short chill. After the chill had passed she again went to sleep, and awoke in the morning with moderate headache, which disappeared during the afternoon; otherwise she felt quite well.

Isolated spasmodic movements were observed in the fingers and arms. In the evening she received gr. viij. quin. sulph. The night of the 22d and 23d, passed without a chill, but the patient was kept awake by coughing, having sat by an open window upon the previous day and taken cold.

On the 23d and 24th there were isolated convulsive movements, and slight headache. On the 26th, only headache. She had, however, to contend with

an acute catarrh of the respiratory tract. After the 28th the catarrh gradually decreased.

From this time on the patient seemed rapidly approaching complete recovery. Her complaints now had reference especially to the sensitiveness of the eyes to light, to diminished power of vision, and to a general feeling of weakness. The healing of the wound on the foot progressed favorably, and on the 28th the wound was about the size of a silver half dollar.

Nov. 4th.—Patient complains of pains in the dorsal and sacral regions, of a tired feeling, of uneasiness, and of loss of appetite. The menses set in on the next day, the flow was slight and lasted but a few hours.

24th.—Angina faucium has developed, and to-day the patient remained in bed from general indisposition.

26th.—The angina is diminishing, patient complains of sacral pains.

27th.—Slight indication of the menses.

Dec. 3d.—The wound on her foot is completely cicatrized, and, her general health being good, she was allowed to leave the hospital and return to her home.

19th.—Patient returned to the hospital. In general, she felt well, but her former health and strength was not fully restored. She moved about slowly and without energy. The eyelids were often only half raised, and their movements were slow. She said that to read was difficult for her and made her very tired; that she could not see by lamplight, and that bright light was disagreeable to her eyes.

In January, 1875, she entered once more upon the duties of servant-girl. Further improvement in her condition was very slow; she was somewhat anæmic. The menses stopped completely; fluor albus appeared, and it was not until six months later that the menses became regular again. Finally, only a slight fluor albus and a dull expression in the eyes remained. Although, when she left the hospital, her fear and anxiety in reference to hydrophobia had departed, they were again aroused by the thoughtless assertions of friends, that it was possible for the disease to relapse. Her unhappiness was still further increased by the fact that a young man, toward whom she entertained the tenderest feelings, was induced to cease his attentions through fear of a renewal of her malady.

In January, 1877, I received from her a letter informing me that she no longer felt any uneasiness, and that for several months past she had enjoyed the most perfect health.

starts upon the smallest exertion, which also causes pain in abdomen and excites vomiting, which has lately become persistent, accompanied with intense thirst. Hands and feet cold, with shrivelled palms and plantar surfaces. No difference in temperature of head and axilla.

Ophthalmoscopic examination gave retinal and choroidal congestion, with venous enlargement, slight optic neuritis, and choked disk.

There was constant pain, and sense of fullness in frontal region.

The only family history that could be obtained bearing upon the case was the death of one sister a year ago, from acute brain inflammation, the remainder of the immediate family being still living and in good health; and the present condition appeared to be the culmination of six years of almost constant pain and general nerve exhaustion, following the birth of the child, aggravated by the subsequent miscarriage.

At this visit no suspicion was entertained by me of any opium habit, and the case was diagnosed as passive cerebral congestion, dependent upon general neurasthenia.

The next day Dr. Wiggin called and gave me the following additional items, which at once placed the case in its proper light, and gave the key to many of the symptoms before cited. After her confinement, which was a long and painful one, she suffered severely from wandering pains in back and hips, for which her attending physician at the time ordered tincture of opium applied externally, giving at the same time ten drops by the mouth, and the ground was broken for the building of the habit. The dose steadily increased until she came under the charge of Dr. Wiggin, some six months previous to my seeing her, when she was taking four ounces of laudanum daily internally, besides continuing external applications as before. Attempts were made to stop the pernicious habit, but it was too late for wise counsel to avail, and the usual cunning of opium-eaters procured for her the drug in spite of every effort of both husband and physician.

All forms of concurrent medication had been faithfully tried, but nothing was of use except the opium, to which it became absolutely necessary to resort occasionally, as, without it, the poor lady would arouse the neighborhood with agonizing screams and cries.

At this juncture, and as a forlorn hope, it was decided to essay galvanism, hoping that its great vitalizing power might aid in restoring tone to the exhausted nerve-centres. At my suggestion Collis Browne's chlorodyne was given in place of laudanum, and produced the same effect with an ounce per diem that the four ounces of the former had done.

Central galvanism was applied with a twenty-four cell Bartlett battery, using six cells from the cilio-spinal centre to the forehead with a downward current; then from the cervical vertebrae to the solar plexus with an ascending current, each lasting six minutes, or until the skin was thoroughly reddened under the negative carbon point. For the first few days applications were made morning and night. In a week the vomiting had ceased and consciousness returned, and the evening sitting was omitted. After a month the dose of anodyne was gradually decreased, but with every diminution the nausea returned, and nothing but a return to the old dose would avail. But her condition was very much improved. She slept better, the eyes were normal as to color, and the palms were no longer dry. At the close of the second month she was able to sit up, and the dose of anodyne

A CASE OF OPIUM HABIT CURED BY GALVANISM.

By WILLIAM F. HUTCHINSON, M.D.,

PROVIDENCE, R. I.

ABOUT the first of January of the present year, I was requested by Dr. O. C. Wiggin, of this city, to see with him a lady supposed to be suffering with cerebral congestion in an advanced stage.

A visit to Mrs. S. revealed the following history: Age 39, married; one child æt. six, and has had one miscarriage. Weight, about 150 pounds, and general appearance of contour and skin good. Patient kept up a low moaning, answering most of my questions intelligently, then relapsing into a semi-unconscious condition. Pulse 100, compressible. Temperature 99°. No loss of control of evacuations. Conjunctivæ congested, and pupils contracted closely. Perspiration

dyne was steadily cut down without the patient's knowledge, by adding to the chlorodyne a sufficient quantity of flavored treacle to replace each dose taken, until at that time an ounce would last three days.

Her general condition was greatly improved, and she began to take some interest in her surroundings. In two months more she commenced to go out, and came to my office for treatment when I changed the current to the Siemens and Halske cabinet cell, which, with its low tension and perfect capability of control, I regard as the ideal battery for central galvanism. There was no further trouble, and to-day, June 21st, the lady is quite well, attending to all her household duties, not having tasted opium in any form for seven weeks, and expressing unbounded delight at being free from the terrible habit which had so long been her master.

The *rationale* of the action of galvanism in this case is difficult to fully understand. When the circuit was closed over the superior cervical sympathetic ganglion, Dr. Wiggin and myself distinctly observed a sudden wavelike contraction of the distended retinal veins, which resumed their size in a few moments after the stimulus was removed. But, after some weeks' treatment, these veins became normal, and the intraocular congestion had disappeared *pari passu* with the cerebral symptoms, and having repeatedly witnessed the same phenomenon in other cases, I am led to believe that the galvanic current has a direct tonic influence upon the vaso-motor system, which accounts for the occasional surprising results obtained in cases of cerebral congestion. With the advent of increased nerve circulation came an absolute horror for the drug, and it is not easy to know to what to attribute the increase of strength of will up to the point of totally dispensing with it of her own accord, unless it be to some change in mental power, due to increased nerve tone, the direct result of what I have before termed the vitalizing power of the galvanic current. Faradism was not at any time employed.

Dr. Wiggin gives full credit to the special treatment for the cure of the case.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL.

OBSERVATIONS IN GENERAL AND CEREBRAL THERMOMETRY IN A CASE OF TUMOR OF THE BRAIN.

(Prepared for THE MEDICAL RECORD.)

By CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE PHILADELPHIA HOSPITAL.

In the *Philadelphia Medical Times* for March 29, 1879, is published an account of a case of tumor of the brain, which was presented to the Philadelphia Pathological Society. Observations in general and cerebral thermometry were made on this case, but were not included in the paper. In the present communication I will give these, with a few remarks. The following is a brief history of the case, condensed from the published account:

The patient was a white woman, aged thirty-five years, who in 1875 had secondary syphilis. During 1876 she suffered with vertigo and headache. In Jan-

uary, 1877, after an attack of terrible headache, she became paralyzed on the left side. In January, 1878, she had marked left facial paralysis, the upper as well as the lower fibres of the nerve being affected. The left arm and leg were paralyzed. She had also left internal strabismus. Farado-contractionity was retained, but lowered, on the paralyzed side. Sensibility was diminished in the left leg only. Hearing was impaired on the left side; taste was preserved; smell was defective. She was excitable and irritable. She had full control of her bowels and bladder at this time. The right half of the body gave no evidences of true paralysis, but she seemed a little deficient in strength in the right arm and leg. She improved under the use of iodide of potassium. On the 26th of August, however, she began to suffer with headache and vomiting. On the 29th she became semi-conscious, and lost control of her bowels and bladder. She perspired very freely. On several occasions, after August 30th, right unilateral sweating was observed. At this date, August 30th, her left eye began to inflame. Dr. E. O. Shakespeare, early in September, noted that she had paralysis of the orbicularis palpebrarum and external rectus, and great congestion of the bulbar and palpebral conjunctiva, with a mucoflocculent discharge. The conjunctiva and cornea were insensitive, and there was necrosis of the lower part of the latter. The right eye presented a normal appearance, its movements being unimpaired. Vision, as roughly tested, was good in this eye. She had perception of light in the left eye. The ophthalmoscope showed atrophy of the right optic nerve. The fundus of the left eye could not be seen. When she passed into the semi-conscious state, on the 29th of August, the left motor paralysis became more pronounced. Early in September she had some difficulty in swallowing; and on several occasions during the same month she had spells of slight convulsive twitching or spasm of the muscles of the mouth, and of the hands and arms. For four weeks she remained in a low, helpless condition, sometimes rallying a little. Some paralysis seemed during this time to take place on the right side of the face and body. On September 27th she showed signs of amendment, but complained greatly of pain in the left arm and leg. She continued somewhat better for four weeks, but varying considerably in her mental and physical condition from day to day. On the 30th of October she became much worse, losing power on both sides of the body, and having involuntary passages. From this time she sank, and died November 18, 1878.

On post-mortem examination, just in front of the optic chiasm the ends of two hard, pinkish-white nodules were seen, constituting what might be termed a twin-tumor. These masses were cuboidal in shape, and of about the same size, the sides of each measuring about two-thirds of an inch. They extended across the median line. They apparently more or less involved, in their growth, the basal termination of the corpus callosum, the peduncles of the corpus callosum, the lamina cineria, and anterior perforated spaces. They also probably encroached upon the roots of the olfactory nerves, the optic nerves and commissure, and the anterior portions of the circle of Willis, which seemed to have been broken in front. The base of the brain, from the posterior line of the tumor backward to the pons, was markedly softened; the softening included the visible portions of both crura cerebri, the inner portion of the floor of the right Sylvian fissure, and the inner two-thirds of the island of Reil.

A specimen from the tumor was examined by the

Committee on Morbid Growths of the Pathological Society, who reported it to be a syphilitic new-formation (gumma).

The temperatures were carefully taken, in the right and in the left axilla, from August 30th to the date of her death, November 18, 1878. They are given, for both morning and evening, in the following table:

		Morning.		Evening.	
		Right axilla.	Left axilla.	Right axilla.	Left axilla.
August	30	100.6°	100.5°	101.5°	101.6°
"	31	100.6	100.5	100	100
September	1	99.6	99.8	99.9	99.9
"	2	99	98.8	99.9	100
"	3	99.5	99	99	101
"	4	100.6	100.5	100	102
"	5	101.5	101	101.8	100.4
"	6	101.2	101.4	100.6	100.5
"	7	100	99.8	100	100.6
"	8	98.6	99	100.6	100.5
"	9	100.6	100.4	100.6	100.5
"	10	100.5	100.4	100.4	100.3
"	11	99.5	100.3	101.3	101.3
"	12	100	100.6	101.4	101.4
"	13	99.8	99.9	100	100
"	14	99.7	101.4	101	101
"	15	100.5	100.5	100.5	100.4
"	16	100.4	100.4	100.5	100.4
"	17	100.6	100.3	100.3	100.3
"	18	100	100	100	100
"	19	99.8	99.7	100.4	100.4
"	20	100.4	100.3	100	100
"	21	101	101	101	101
"	22	101	101.4	101	101
"	23	101.5	101	101	101
"	24	100.5	100.5	102.3	102
"	25	100.5	101.5	101.2	101.3
"	26	100.5	100.6	102	102.1
"	27	99	99	99	99
"	28	99	99	99	99
"	29	98	98	98	98
"	30	98.5	98.5	101.3	101
October	1	98.6	98.6	101.4	100.8
"	2	100	100.3	101.6	100.2
"	3	100.5	100.6	101.5	101.7
"	4	100.3	101	100.1	100.7
"	5	98.5	98.5	100	100
"	6	99.5	99.2	101	100.5
"	7	98.6	98.6	100	100.7
"	8	98.4	98.7	100	100.6
"	9	99.6	100.5	100.2	101
"	10	99	99	100.5	100.5
"	11	99.7	100	99.6	100.4
"	12	99.8	99.8	100.6	100.5
"	13	99.7	100	100.1	100.7
"	14	98.5	99.5	99.5	100
"	15	99.3	100	100	100.7
"	16	98.6	98.5	99	100
"	17	98.5	99.5	99	100.5
"	18	99	99.5	99	99.6
"	19	99.4	100	100	100.5
"	20	99	99.6	99.6	100.3
"	21	99	99	99.5	99.4
"	22	97.7	98	99	99
"	23	98.5	98.5	100	100.5
"	24	99	99.5	102	102.6
"	25	99.6	99.8	100.6	101
"	26	99.5	100	100	100.5
"	27	99.5	100	101	101
"	28	98	98.5	100	100.7
"	29	100	100.4	101	101.5
"	30	100.5	101	101.6	102
"	31	99.7	100.5	101.1	101.5
November	1	99	100	102	102
"	2	100	100.5	100.6	101
"	3	98.6	99.6	99.5	100
"	4	98.5	98	99.6	100.6
"	5	98	98.5	99	97.6
"	6	98.5	98.5	98.5	98.5
"	7	98	98	97.7	97
"	8	98.5	97	98.6	97.5
"	9	98	97	97	97
"	10	98.5	98	97	98.5
"	11	97	98.5	98.5	98
"	12	97.5	97	97	99
"	13	98.5	97.5	98.5	94.3
"	14	98.5	99	99.5	100
"	15	98	97	99.8	99
"	16	94	96	99	97
"	17	99	99.6	99.5	100
"	18	103	103		

I will recapitulate the prominent points brought out by this table.

Observations were made on eighty-one days; eighty records were taken for each axilla in the morning, and eighty for each in the evening. The evening temperature was usually higher than that of the morning; in only twenty-one instances was the latter higher than the former. On forty-four days the morning temperature was higher in the left axilla than in the right; on nineteen it was higher in the right than in the left; on seventeen it was the same in both. On thirty-six days the evening temperature was higher in the left axilla than in the right; on twenty-two it was higher in the right than in the left; and on twenty-two it was the same in both. The following are the averages of the different observations for the entire time:

	Right Axilla.	Left Axilla.
Morning.....	99.1°	99.4°
Evening.....	100°	101.4°

During the two days of August, the whole of September and October, and the first three days of November, the temperature usually ranged between 99° and 101°, only occasionally going above or below these figures. After November 8d, until a few days before her death, it was on both sides almost constantly below the normal; toward the last it again began to show an upward tendency. On several days the fall of temperature was very remarkable; on the morning of November 9th, for instance, it was as low as 98°, and on the 16th as low as 94° in the right axilla; on a number of occasions it was 95° and 96°. On November 18th, the day of the patient's death, it shot up from 99.6° to 103°. The temperature was taken in each axilla half an hour after death, and was found to be, in the right, 107°; in the left, 106°.

I will next give the observations in cerebral thermometry. Broca, in 1877, made some investigations into head temperatures (*Progrès Médical*, 1877, and *Lancet*, October 20, 1877). In the *New York Medical Journal* for August, 1878, Dr. Landon Carter Gray published a paper on "Cerebral Thermometry," read before the American Neurological Association June 20, 1878. An abstract of this paper appeared in the *Journal of Mental and Nervous Diseases* for July, 1878, and the article in full was reprinted in the same journal for January, 1879. In the *Philadelphia Medical Times* for January 18, 1879, I published a communication read before the Pathological Society of Philadelphia, on a case of tumor of the frontal lobe of the brain. This, in addition to some axillary observations, contained investigations in cerebral thermometry. The case was, I believe, the second on record in which the thermometer had been used to locate a cerebral growth, the first being given in Dr. Gray's paper.

The stations selected for the observations were those given by Broca and Gray, as follows: Frontal stations on each side, somewhat back and above the external angular process of the frontal bone; parietal stations above each ear; occipital stations on each side of the occiput; anterior vertical stations just in front of the line of the fissure of Rolando; and posterior vertical stations just posterior to this line. The average distance of the fissure of Rolando from the junction of the nasal and frontal bones is put down by Gray as 6½ inches.

A modified Seguin thermometer was employed. The observations were made late in the afternoons of seven successive days, with the valuable assistance of Dr. Brown, resident physician at the Philadelphia

Hospital. The results expressed in the Fahrenheit scale are given in the following table:

	Right frontal station.	Left frontal station.	Right parietal station.	Left parietal station.	Right occipital station.	Left occipital station.	Right anterior vertical station.	Left anterior vertical station.	Right posterior vertical station.	Left posterior vertical station.
October 29.....	96.8	94.1	100.4	95.9	96.4	94.1	97.7	94.1	97.2	94.6
" 30.....	96.6	94.6	99.3	97.7	97.7	97.6	96.2	97.2	93.2	
" 31.....	96.8	94.1	97.7	97.1	98.1	93.5	96.5	93.2	96.8	94.1
November 1.....	96.7	94.4	96.8	95.5	96.9	93.2	96.2	94.4	96.9	95.5
" 2.....	96.5	95.9	99.4	96.9	96.8	99.2	96.8	96.6	94.5	
" 3.....	96.8	94.4	95.4	94.4	95.9	93.7	95.8	92.8	95.9	95.5
" 4.....	95.5	95.9	95.9	91.4	96.3	91.4	97.2	92.8	95.5	93.2
Average temperat's.	97.1	94.7	97.6	94.4	97.4	94.5	97.4	94.4	96.5	94.3

The temperature of the room during the observations ranged from 60° to 70°.

Before making any remarks upon this table, for the sake of comparisons and clearer study, I will first give some of the results obtained by Gray, and also briefly refer again to my former case.

The normal average temperatures, as determined by Gray, were as follows:

Left frontal station.....	94.86°
Right " ".....	93.71°
Left parietal ".....	94.44°
Right " ".....	93.59°
Left occipital ".....	92.66°
Right " ".....	91.94°
Left side of the head.....	93.83°
Right " ".....	92.92°
The whole head, exclusive of the vertex.....	93.51°
Motor region of the vertex.....	91.67°
The whole head, inclusive of the vertex.....	92.66°

In his case of tumor the temperatures at different stations were as follows:

	Left.	Right.
Frontal.....	96.75°	98.38°
Parietal.....	96°	99.75°
Occipital.....	96.75°	100.50°

The average of the left side was 96.16°; of the right, 99.52°; of the whole head, 97.84°.

On post-mortem examination, a soft, jelly-like tumor the size of a hazel-nut was found between the horizontal or posterior branch of the fissure of Sylvius and the first temporal fissure, while the whole of the right occipital lobe was converted into a colloid, extremely vascular mass, which gave way under examination; this degeneration also extending anteriorly to the tumor as far as the fissure of Sylvius. There was no apparent disease except at these points. The tumor was ascertained to be a glioma.

In my case of frontal tumor, reported in the *Medical Times*, the average temperatures of the different stations taken were as follows:

Middle frontal station.....	96.5°
" occipital ".....	95.5°
Right frontal ".....	95°
Left " ".....	94.7°
Right parietal ".....	94.7°
Left " ".....	94.4°

In Gray's case it will be seen that all the stations on the head showed a marked rise of temperature

above the normal averages. In my former case the middle frontal and occipital stations—taken in the centres of the forehead and of the occiput—and the right frontal station gave decided elevations, the other stations showing a slight increase. In the present case we have for all the right-hand stations a striking elevation, the average for these being about 97°, against a normal average of about 92.9°, a difference of 4.1°. The average of the stations on the left side of the median line was 94.3°, only about .5° above the normal. In the three cases the temperatures of the right side of the head were much higher than those of the left; while in health, it is generally admitted, and has been determined by Broca, Brown-Séquard, Gray, and myself, that the left side gives a higher temperature than the right. Between the various stations on the right side, and also between those on the left, the variations of the averages are not very marked. The average of the temperatures taken at the right parietal station was, however, from a half to one degree higher than that of any other location, and the highest single record (100.4°) was obtained here. Between the lateral and vertical temperatures the differences were not great; the lateral were, however, higher. The rise of temperature on the right side was more positive over the anterior than over the posterior half of the head.

In this case, as in the others, surface thermometry, I think, afforded some aid to regional diagnosis. It assisted at least in excluding such regions as the occipital lobe, the cerebellum, and the pons varolii as probable seats of the growth. As I have remarked in my former paper on this case, it simulated in many respects one of tumor, or other limited lesion, in the anterior part of the upper half of one lateral region of the pons. The local cerebral temperatures, however, indicated a lesion low down in the right anterior half of the cerebrum. Autopsy revealed a tumor in the anterior portion of the brain, and one visible at the base, but it was located in the median line. The probabilities are, that it chiefly exerted pressure on the ganglia and internal capsule of the right side.

The bodily temperatures taken in the axillæ, during the week that these cerebral observations were made, ranged for the right axilla from 99.5° to 102°, averaging 100.7°; for the left axilla they varied from 100° to 102°, averaging 101.2°.

Progress of Medical Science.

ON MELALEUCA PARAGUAYENSIS AND ITS THERAPEUTIC ACTION.—At a recent meeting of the *Académie de Médecine*, M. Planchon read the report of the commissioner appointed to consider a paper with the above title, which was presented by the children of Aimé Bonpland as a tribute to the memory of the companion of Humboldt. Bonpland discovered in Paraguay a plant analogous to the melaleuca of Molucca, and instituted a series of experiments with it to determine its therapeutic properties. He made a tincture from its flowers and leaves, and extracted from the plant an active principle in the form of a resin. He found that these preparations possessed a decided sudorific action. He employed them in the treatment of rheumatism, gout, syphilis, yellow fever, and cholera, and believed that his observations were sufficiently conclusive to determine that the melaleuca is a valuable therapeutic agent.—*Le Courier Médical*, April 19, 1879.

A MONUMENT TO PINEL.—The initiatory steps have been taken in Paris towards the fulfilment of the desire long felt by alienists of all countries, that some enduring memorial should be erected to commemorate the humanitarian labors of the illustrious Pinel. The *Société médico-psychologique* appointed a special committee to consider the subject, and its report suggesting the erection of a statue of Pinel at the Salpêtrière was unanimously adopted. The *Conseil général de la Seine* has voted a contribution of \$400 to the fund for the erection of the statue, and the municipal council of Paris, in which the medical element is strong, will probably do as much or more. The *Gazette des Hôpitaux* has opened a public subscription list, in which it is hoped that American names will not be entirely wanting.

CHANGES IN THE RENAL EPITHELIUM IN BRIGHT'S DISEASE.—In a paper read before the *Académie des Sciences*, M. Cornil has described a peculiar alteration of the renal epithelium, which he met with for the first time at the autopsy of an albuminuric patient last March. The patient had suffered from albuminuria not quite two months; during this period he had passed very little urine, and at times there had been almost complete anuria. He died in uræmic convulsions. Portions of the kidneys were treated with osmic acid, and when examined under the microscope, the greater part of the epithelial cells that had remained in contact with the walls of the convoluted tubules were found to present voluminous vacuoles, most of which contained a globule of albuminoid matter that had been solidified by the osmic acid. Often a cellule contained two or three of these vacuoles. The isolated cellules, with their cavities surrounded by protoplasm in which the nucleus could be seen, presented the aspect of the physalides of Virchow. The lumen of the uriniferous tubules whose cellules were affected contained large quantities of these globules, the substance of which was slightly tinged by the osmic acid, and presented a few fine proteic granules. The tubules were distended by these products. As the kidneys were greatly congested, there were also a few blood-globules in the capsules of the glomeruli and the lumina of the tubuli. M. Cornil thought there could be no doubt that these globules of albuminoid substance had been derived from the cellules, as epithelial cells with empty cavities were often met with. By combining and fusing together, the globules formed hyaline or colloid casts in the straight tubes.

In this case of Bright's disease, then, the renal epithelium elaborated in their protoplasm and discharged in the urine droplets of proteic matter, which could readily be seen by the help of osmic acid. This pathological function of the cells possesses considerable analogy with the secretion of mucus by the calciform cells of the digestive mucous membrane. In two other cases of Bright's disease, M. Cornil found in the kidneys, when treated with osmic acid, analogous lesions of the cellules, consisting in the development of small proteic masses in their protoplasm. Some of the uriniferous tubules contained also globules of albumen. The observations, however, are not yet sufficiently numerous to justify the deduction of a general conclusion. In the later stages of the disease the cells undergo fatty degeneration, but contain the proteic globules until they are disintegrated. M. Cornil found the same lesion of the cellules in a case of cystic kidney. The patient had died in uræmic coma. In this case the cysts were formed at the expense of the urinary tubules. In the dilated tubes that were in

process of cystic transformation, the cells lining the walls presented in their interior vacuoles and globules of albumen. The cavity of the tubes was filled with globules that had escaped from the cells. M. Cornil states that the lesion can be recognized in fragments of the kidney treated with Mueller's fluid, but that it is rendered much more distinct by the use of osmic acid.—*Gazette Médicale de Paris*, May 8d.

EXPERIMENTAL INVESTIGATIONS ON THE ACTION OF INHALED SUBSTANCES.—M. Schottelius reports the results of two series of experiments on dogs, which were undertaken with a view to determine the action of inhaled dust on the lungs. In the first series a single insufflation through a tracheotomy canula was practised, the substances employed being, in one set of cases, inorganic dry bodies, viz., vermilion, Berlin-blue, and magnesia usta, and in another set, dried and powdered organic substances, such as fæces, pus, etc.; in the second series the animals were compelled to inhale various substances for a prolonged period. The experiments with vermilion and Berlin-blue produced lesions resembling in many respects those of anthracosis pulmonum. The colored particles were found in the epithelium of the alveoli, in the lymph-canals and lymphatic glands, and later in the stellate connective-tissue cells. Here and there also, the pigment granules were found in the epithelium of the bronchi, and in the lymph-passages situated in the deeper layers of the bronchial mucous membrane. Dr. Schottelius could not demonstrate the existence of stomata leading directly from the lymph-canals into the alveoli. These inorganic substances never excited any severe or destructive inflammation. On the other hand, the insufflation of the different organic substances, which, it must be noted, were all either already involved in, or ready to enter upon the process of decomposition, produced broncho-pneumonia with special tendency to ulceration.

In the second series of experiments the dogs were confined in large, well-ventilated boxes, and were made to inhale at regular intervals finely divided organic particles. One dog inhaled for an hour a day during eight weeks, the dissolved and atomized sputa of tubercular patients; another inhaled during the same period the sputa of non-tubercular patients; a third inhaled Limburger cheese rubbed up in water, and a fourth the brains of different animals. All the dogs when killed presented the same lesions: tubercle-like nodules in the lungs and pleura, which Dr. Schottelius divided anatomically into three groups. The nodules of the first group proved to be milary hepatizations. Those of the second group were formed by accumulations of cells in the adventitia of large and small bronchi and of the blood-vessels, and resembled closely the inflammatory foci developed after insufflation of inorganic substances. The third group comprised nodules formed by the closure of small bronchi.

Dr. Schottelius claims that the similarity of the lesions in these cases proves that tubercular sputa is not the only substance which when inhaled will produce tuberculosis, and hence that it is not a specific infectious agent.—*Allg. med. Cent. Zeit.*, No. 33, 1879.

SCHOOL VENTILATION.—The subject of the better ventilation of schools is at length being agitated in London. There seems to be there, as with us, room for great improvement in this direction.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 9, 1879.

MEDICAL INSPECTION FOR SICK CHILDREN.

THE Medical Corps, appointed by the Board of Health to visit tenement-houses, inquire for, and give general directions—if need be, prescriptions—for the relief of sick children, is thus far doing its work satisfactorily and with good results.

The rate of mortality during the heated season, since the employment of such a corps of medical visitors, has not increased, notwithstanding the yearly increase of our population.

In the year 1877—that following the inauguration of the plan—the highest mortality for a single week in the months of July and August was 825; the next highest was 756.

In the year 1878 the highest mortality for any single week during a corresponding period was 820. The present outlook is, that the mortality for the months of July and August of this year will not exceed what it was for the years 1877 and 1878.

To show that notable benefit has followed the present plan of inspection, we give the mortality reached in corresponding weeks within the same months—July and August—for the years 1875-74-73-71-70 and 68. In 1875 the highest mortality was 934 and 939; in 1874, 824 and 861; in 1878 it was over 900 twice, and over 800 once; in 1871 it reached 820 but once; in 1870 there was one week in which it reached 980; and in 1868 the highest mortality reached in any single week during the same months was 1,142. All these were years in which the heated season was of average severity, and the inhabitants had an ordinary immunity from summer diseases. Besides, so far back as 1870, the population was nearly 100,000 less than at the present time. No increase in the rate of mortality for the year 1878 as compared with the year 1877, with a steady increase of population, is good evidence of itself that the work instituted

by the Board of Health has not been barren of good results; but when the comparison is made with the rate of mortality for the years from 1868 to 1875 inclusive, this becomes much more apparent.

The figures we have given include the number of deaths from all causes; but, when the investigation was restricted to diarrhoeal troubles among children, about the same proportion was found to exist. The work, then, which this medical corps is doing under the immediate supervision of the Board of Health, is of vital importance to the city, and should be well sustained.

THE RATE OF MORTALITY IN THE CITY OF NEW YORK.

It will not be out of place in this connection to lay before our readers some of the influences which have a special tendency to increase the death-rate in the city of New York.

The statement has been made that in other cities—for example, in Brooklyn and in Philadelphia—the rate of mortality is far less than in New York; hence, the former, so far as human existence is concerned, are much more desirable localities in which to live.

Externally it may appear so, but the inner aspect of the subject, we think, proves that the city of New York is not altogether a whited sepulchre full of dead men's bones.

The rate of mortality in all the three cities mentioned has had for its basis the estimated population, and, of course, it is easy to understand that when estimation becomes over-estimation, the rate of mortality will correspondingly decrease.

When we look at the estimated increase in the population of the city of New York for nearly five years, it is found to be 6,000; while for the city of Brooklyn it reaches 86,000; and Philadelphia has reckoned her increase during the past three years as 84,000. These, however, are mere estimates; yet they are such as give for Philadelphia the lowest rate of mortality. But it must not be forgotten that the three years for that city embrace the Centennial, in which a large representation of the population of the world took up their abode within her borders.

Within the last five years there have developed within the city of New York certain improvements which render it very probable that its present population has been under- rather than over-estimated. For instance, our system of flats has made it possible for many, who previously were unable to be residents of the city, to now make their homes within its limits. Again, our elevated railways have undoubtedly kept among us as residents many who formerly visited us only for social entertainment or for business purposes. In the first place, then, the estimated population of a city may materially change the rate of mortality among its inhabitants.

In the second place, the rate of mortality for the city of New York is affected from a source which is

felt in Brooklyn and Philadelphia only to a very limited extent—namely, deaths among foundlings. This city has a foundling asylum, and to it are taken not only the city's own foundlings, but foundlings from Brooklyn, from Philadelphia, and from all parts of the United States, and that for the reason that no special provisions have been made in other places for this class of unfortunates. Every year about 600 foundlings die in the city of New York, and thus become a special source from which the rate of mortality for the city is increased.

In the third place, in estimating the rate of mortality, we must take into consideration the number of deaths which occur in county institutions. Between five and six hundred deaths occur annually in the public institutions belonging to Kings County, but they are situated outside of the limits of the city of Brooklyn. These institutions in the county of New York add their mortality to that which obtains in the city proper, and therefore exert a special influence upon the death-rate not felt by many other large cities in our country. More foundlings die in New York annually than in all the county institutions for the county of Kings, and the one increases the rate of mortality for the city of New York, while the other leaves the rate of mortality for the city of Brooklyn unaffected.

In all the public charitable institutions for the city and county of New York the mortality for the years 1876, 1875 and 1874 was in round numbers one-sixth of the total mortality for the entire city and county, which are one and the same with reference to mortuary statistics.

In the fourth place, death among emigrants is a special source from which the mortality of the city is increased. Sick emigrants are taken to Ward's Island, where about 100 die annually and are added to the city's mortality.

Again, New York is a rendezvous for certain classes which derive their support largely from the country and from other cities, and their habits and mode of living give rise to an abnormal degree of mortality.

Besides, New York has been regarded by some institutions within the borders of neighboring States as a sort of general receptacle for all that is diseased and likely to die early, after being shipped hither, and the alertness of the managers of some of our own institutions has been called into requisition to prevent themselves from being made the subjects of imposition.

From what has been said and the figures given, we think it will not be difficult to see that New York is subject to special influences which tend to increase its rate of mortality, but which do not, at least to nearly such an extent, affect the rate of mortality in other cities.

The simple fact that the rate of mortality in the city of New York is higher than that in other cities is not positive evidence that other cities are healthier than is New York.

TRICHINOUS PORK.

THE recent fatal cases of trichinosis in the city of Brooklyn, and the threatened action on the part of the British authorities to make stringent regulations in regard to the importation of American pork, naturally direct attention to this subject. From such facts and statistics as are at command to this date, the question stands as follows:

Professor Richard Heschel, of Vienna, recently said, that an examination of American hams had been made in North Germany to test how far they were infected with trichinæ. No particulars are given regarding the manner in which the search was made, but the results published state that one in from five to ten hams contained trichinæ, whereas the average in Westphalian hams was one in 2,000 to 2,500.

More recently two physicians at Chicago, Ill., Drs. H. F. Atwood and W. F. Belfield, made an examination for trichinæ among 100 hogs, and of these eight contained the parasite; some were badly infected, while others contained but few. This result, showing that twelve per cent. of hogs are infected with trichinæ, is an alarming average, for it indicates that every twelfth time pork is eaten probably the consumer partakes of trichinous meat. An examination, however, made in Chicago in 1866, showed that about two in 100 hogs were trichinous.

We are not at present prepared to accept such sweeping conclusions as the first two, for the following reasons. In the first place, no systematic investigation in regard to trichinæ in hogs has been made by competent men. Before this has been done, we do not wish to draw general conclusions derogatory to the porcine family throughout the United States.

Admitting the correctness of the Chicago examination, we decline to allow a single local investigation to be accepted as a standard. The very nature of this parasitic disease suggests that its existence is probably local and confined to certain districts. German hogs are troubled but little with trichinæ, and in England pigs are said to be free from this parasite; but probably careful examination would show its existence. It was in England that the *Trichina spiralis* was first discovered in 1838.

It is highly probable that, in some parts of the United States, trichinæ in hogs exist to a greater extent than in other localities, and it is, therefore, not just to select a single consignment, which probably came from one district, and from its examination deduce general statements.

Professor Heschel made all his observations upon American hams, and states that from 10 to 20 per cent. were infected with trichinæ. Drs. Atwood and Belfield, in the one hundred hogs examined in Chicago, did not find a single trichina in the hams, but met them in other parts of the bodies, particularly the "psaos muscle." On the other hand, in the two fatal

cases occurring in Brooklyn, the disease was contracted by eating uncooked American hams. Here are discrepancies showing that the microscopical examinations so far made are not satisfactory, and it may be suggested that those interested in the sale of pork, ham and bacon have systematic examinations made of the meat passing through their hands. This would probably lead to valuable results, and perhaps show that trichinæ in pork, hams, etc., do not exist to the extent the statistics we have given indicate. On the other hand, the parasitic disease might, in that way and to some extent, be localized.

As trichinous meat is rendered practically harmless by thorough cooking, we cannot condemn too strongly the practice, still prevalent among certain classes, of eating raw ham. The trichina is so little known in Europe, that it is possible only few who come from there here, and thus eat raw meat, are aware of the risk they run in continuing the practice.

The fact that this parasite is now constantly met with in the dissecting-room appears to indicate that the number of those who are involuntarily acting the part of its host is largely on the increase, while few are aware of the acquisition they have made. Fatal cases are so rare that they may be probably attributed to eating such samples of trichinous meat as are referred to by Leuckart, who counted 160,000 trichinæ in a single ounce. If we suppose a ham to be thus infected and six ounces to be eaten, nearly a million trichinæ would pass to the intestines; within forty-eight hours these would be sexually matured, and in six days afterward a countless brood of larval trichinæ would be set free. These, all boring and perforating the intestines in their attempt to migrate, would naturally give rise to serious, if not fatal results. Such cases are no doubt rare. More often the number of trichinæ is small, producing a larval brood that passes through the system without serious injury, and, becoming encysted, remain harmless.

In conclusion we repeat our suggestion that a more general and systematic examination of pork should be made at packing-houses, by those acquainted with and able to detect the parasite, and that the public, on their part, should avail themselves of the simple but effectual protection obtained by thoroughly cooking all preparations of pork when served for the table. The Board of Health of this city has applied several times for money with which to employ meat inspectors, but have, thus far, failed to obtain the requisite appropriation.

THE Royal College of Physicians of London have conferred the Baly Medal for Physiology upon Charles Darwin.

REFERRING to the not unfrequent habit of giving to deceased parties titles to which they have no claim, the *Medical Press and Circular* quotes the lines of Pope put into the mouth of a dying lady of fashion:

"Narcissus! give this cheek a little red,
One would not be quite hideous when one's dead."

Reports of Societies.

WEST CHICAGO MEDICAL SOCIETY.

Regular Meeting.

DR. NORMAN BRIDGE, PRESIDENT, IN THE CHAIR.

THE PRESIDENT exhibited a new obstetric forceps, the invention of DR. JOHN BARTLETT. It was for use in high positions of the head, and to make traction in the direction of the axis of the superior strait. Dr. Bartlett claimed that it would accomplish direct traction in a much simpler way than the forceps of Tarnier. It resembled somewhat the forceps of Dr. Hobbs. In construction, the striking peculiarities were a long straight shank, with its two parts placed one in front of the other, instead of side by side; the shank leaving the blades at a more acute angle than was the case with most forceps heretofore in use; the handles being parallel to the axis of the blades, and long and strong. It was, in the view of the inventor, a fact of some moment that as the axes of the handles and blades were parallel, the obstetrician could always know the exact direction in which he was making traction by noting the direction of the handles. By this instrument direct traction could be made without forcing backward the perineum.

DR. H. M. LYMAN did not regard the instrument as a valuable addition to the armamentarium of the obstetrician. It was too awkward, and the handles were placed so far in front of the blades (above them), that although parallel to their axis, it must be difficult in using them to know just where the blades were, and what they were doing.

DR. BOTTSFORD thought the instrument might be a useful one, but that it would profit by the addition of the saw handle of Dr. Hobbs's forceps.

FRACTURE OF THE NECK OF THE FEMUR—ABILITY TO WALK.

DR. E. W. LEE detailed the history of a case of fracture of the neck of the femur, the patient being able to walk about after the injury. The patient was a boy of eleven years, who caught cold skating on Christmas day, walked home, and was sick next day, and in two or three days was obliged to go to bed. There was fever, painful joints, the knees and left hip particularly being involved, and the attendant supposed him to have acute rheumatism. The case failing to improve, Dr. Lee was called January 23d, and found pulse 140, hot moist skin; there had been profuse night-sweats; the hip was swollen, and great pain was caused by the slightest motion. The knee was raised on a pillow; it was painful, but not swollen or tender. To appearances, there was inflammation of the hip-joint. Cinchonidia, morphia, to quiet pain, and hot fomentations locally were ordered. In a few days the boy could sit up in a chair. The hip was still painful and swollen. Dr. Lee then determined to examine the case more fully. On the patient assuming the recumbent posture with both legs straight, he was surprised to notice that the limb of the painful side was one and a half inches shorter than its fellow. He then anesthetized the patient, and made, with Dr. Parkes assisting, a thorough examination of the joint, with the result of finding an unmistakable fracture of the neck of the femur. It was ascertained afterward that on Christmas day the boy had fallen upon the ice a distance of six or eight feet—a fact he had denied; that he had walked

home, a distance of several blocks; that he had been about the house, gone on errands to the market, and played upon the door step the second and third days after the injury, and before he had been obliged to take to his bed. There had been no sudden giving away of the hip-joint, but he had got gradually worse, till he was obliged to keep the recumbent posture. Great pains had been taken to ascertain accurately the history, and Dr. Lee felt sure the facts were as he had stated them. That the boy had walked about after the injury as stated, was vouched for by numerous reliable witnesses.

He thought it not unlikely the case had been complicated early by acute rheumatism, but the theory of the trouble of the hip was that an impacted fracture had been sustained which had not become disengaged during the time the patient was walking about.

On making extension of the limb, the appearance of swelling about the hip had almost wholly disappeared, showing that it must have been due to the thickening of the muscles incident to their contraction.

SPLINT FOR FRACTURED THIGH.

Dr. Lee next exhibited a splint, of his own device, for treating fracture of the thigh. It consisted of a firm continuity of wood posteriorly, the entire length of the limb—and more, a fixed foot-piece, projecting from the lower extremity, and above this a movable foot-piece taking its motion and attachment from the first by means of an adjustable screw; numerous parallel strips of thin splint material, an inch wide, fastened to canvas and attached to the upper end of the splint in such a way as to easily surround the thigh, inclosing it firmly. This part of the apparatus was about a foot long, and fitted the thigh accurately. Counter-extension was secured by pressure upon the conical form of the thigh by this wood socket—simple tapes being used to tie it firmly about the limb. Extension was made by adhesive straps attached to the thigh below the seat of fracture and fastened to the movable foot-piece, the force being adjusted by the screw connecting the two foot-pieces. The splint was to be properly padded with cotton. No pressure against the perineum was required. The apparatus was very convenient, as the patient could be easily moved about without danger of displacing the fragments. It was a labor-saving machine for the surgeon; he knew of no splint that gave such good results with so little trouble to the surgeon. He averred that he had treated with it several cases, in both children and adults, in which recovery took place without a particle of shortening.

DR. TAGERT referred, in the discussion, to a case he had treated of a man of fifty, who had fallen from a street-car, and fractured the neck of the femur. He walked ten blocks after the injury, and no shortening occurred till two weeks afterward, when it suddenly appeared and reached the degree of two inches.

ULCERATION OF THE FACE IN A CASE OF SCARLATINA.

DR. BRIDGE reported a case of extensive ulceration of the face in a case of scarlatina. The patient was two years and four months old. He first saw the case during desquamation, and two weeks from the beginning of the sickness. The case appeared to have been a severe one; the throat was considerably swollen, but contained no ulceration, nor was there any tendency to the formation of abscess at the angle of the jaw. An ichorous fluid was flowing from the nose, and this, with the odor, suggested a diphtheritic

complication. The face was involved in erysipelas, which did not extend to the sides of the neck. Both eyes were closed by the swelling, the left most firmly. On the external surface of the left under eyelid was an ulcer, measuring one-half by three-quarters of an inch, quite deep, but not involving the border of the lid. The eye was not inflamed or injured. The erysipelas soon disappeared from the face, and the general condition improved for a time, but the ulceration continued, and the child died two weeks later of exhaustion. At death the ulcer had become a deep slough, measuring laterally two and a half inches, and two inches vertically, but it had not invaded the border of the eyelid; it had destroyed the integument of a considerable portion of side of the nose and cheek.

The Society then adjourned.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Regular Meeting.

DR. H. P. MERRIMAN, IN THE CHAIR.

THE MANAGEMENT OF THE THIRD STAGE OF LABOR.

DR. DE LASKIE MILLER read a paper on this subject. He thought too little attention was usually paid to this, what he believed to be the most important stage of labor. Practitioners were too much in a hurry to cause the completion of the process of expulsion of the placenta. Time was important—time between the uterine contractions which detach the placenta from the walls of the womb—to enable small coagula to form and plug up the orifices of the uterine sinuses. It was improper to hasten the expulsion of the placenta by kneading the uterus into immediate contraction. When the uterus as slow to contract and expel the placenta time should be allowed, provided no serious hemorrhage occurred; the detachment from the uterine walls should be accomplished by the unaided efforts of the organ itself.

Too sudden and forcible delivery of the placenta exposed a patient to danger of post-partum hemorrhage, and to retention of blood in an imperfectly contracted uterus, which might decompose and cause both severe after-pains and septicæmia. He queried whether this was not a cause of the so-called "milk-fever." He thought subinvolution of the uterus might result from the bad practice referred to. The chief obstetric value of ergot was in the third stage of labor; he thought it should rarely if ever be used in the second stage.

The placenta should be delivered from the uterus after its detachment by bringing down its border with the finger, never by traction upon the cord. When inertia of the uterus occurred without hemorrhage, give time and restoratives; if serious hemorrhage occurred, introduce the hand and deliver the placenta and secure contraction. Irregular contraction, as that of the hour-glass variety, might best be overcome by moderate force applied continuously, and if the placenta was adherent it should be separated by the hand and delivered as soon as diagnosed.

DR. RALER objected to the practice of using disinfecting injections during the first twelve hours after confinement. Fresh wounds would absorb septic matter, but in a few hours a glazing of the wound surfaces appeared which protected them from absorption. Injections would wash away this glazing material and thus make absorption more likely to occur. DR. DUDLEY believed in using hot-water injections

into the uterus in every case. It was very useful in case of hemorrhage and removed clots. He referred with favor to the use of hot injections of carbolyzed water every four hours to protect the parturient canal from absorption of poisonous matter.

DR. T. D. FIRCH thought milk-fever resulted from mammary congestion; that after confinement a free evacuation of the bowels should be early secured; that in the third stage of labor it was proper to press upon the uterus, rather upward than downward, and to make traction upon the cord.

DRS. NELSON and JONES always watched closely the womb for at least an hour after labor, to make sure of firm contraction.

The Society then adjourned.

CHICAGO MEDICAL SOCIETY.

Regular Meeting.

DR. E. INGALS, PRESIDENT, IN THE CHAIR.

TUMORS OF THE LARYNX.

DR. D. W. GRAHAM reported a case of tumor in the larynx in a girl eight years old. He had treated the child some months previously; had lost sight of her, and knew nothing further of the case till called to make a *post-mortem* examination. He had first seen her two years previously, and had last treated her in the November preceding. There was no evidence of a hereditary taint except as shown by the appearance of venereal warts on the person of a younger brother, whom Dr. G. had treated. Aphonia appeared when the child was three years old, and had persisted to some degree until her death. There were no other symptoms; the general health appeared good. Iodide of potassium was given to some extent, but with no particular effect. The history given of the closing days of the case by the friends was, that about a week before death dyspnoea came on for the first time. It did not exist to an alarming degree, and nothing seems to have been done for it. Half an hour before death a fit of severe dyspnoea came on, which persisted until from its effect life was extinct.

Large papillomatous growths were found above and below the vocal cords, covering a large part of the surface of the mucous membrane of the larynx and obstructing considerably the glottis.

There was found just below the cords a mass of quite tenacious mucus, of a size sufficient, in the event of its engaging in the glottis, to seriously obstruct respiration. Dr. G. believed this mass of mucus to have been the cause of the final fit of dyspnoea; that it was thrown by a coughing effort against the vocal cords and abbreviated greatly the breathing space, and thereby induced the strangling.

TUMORS OF THE VOCAL CORDS.

DR. E. F. INGALS read a report of two cases of tumor of the vocal cords which he had removed by operation.

CASE J. was of a seamstress, twenty-three years old, who complained of hoarseness and some pain at times in swallowing. The larynx—including the vocal cords—was congested; and a small tumor, slightly pedunculated, was found attached to the under surface of the left cord, near its anterior extremity. Astringent powders were applied, and soon the congestion disappeared and the tumor grew less. The larynx was very intolerant of instruments.

Repeated attempts were made to seize the tumor

with McKenzie's tube-forceps, with blades opening antero-posteriorly, but it was not possible to pass the blades between the cords and reach the tumor, so near was the latter to the anterior commissure. Then that part of the tumor which reached above the cords was grasped by the same instrument, the blades being turned so that they opened laterally; it was crushed, and a part of its covering was brought away. In three days there was nothing apparent at the site of the tumor but a slight prominence. In ten days the cord was normal, as was likewise the voice.

CASE II. was a fibro-cellular tumor on the right vocal cord of a woman of twenty. She had had hoarseness for over a year, it having commenced in a cold. There was occasional dull pain in the larynx. The patient had received a great deal of treatment for laryngitis. A small tumor was found growing from the under surface of the right cord, near its anterior extremity. It measured at its base "about six millimetres," and at its apex half as much.

During ordinary respiration the epiglottis hung so far backward that only a part of the glottis could be seen by the laryngoscope. On uttering a high-pitched "a" tone the tumor projected above the cord. In this case it was impossible to grasp the tumor with the forceps opening antero-posteriorly. Accordingly it was grasped during phonation with the blades opening laterally, and most of it was torn off. It was soft—indeed, semi-fluid. Five days later only a swollen spot on the cord told of the location of the growth, and a week later this was gone. The voice was then normal.

NEW INHALING APPARATUS.

DR. F. H. DAVIS made some remarks on the local treatment of bronchial and pulmonary diseases, and exhibited to the Society a simple and cheaply made inhaler which he had designed. It consisted of a tin vessel of the shape and size of a small dinner-pail, into which another and smaller vessel, bottom side up, fitted, the bottom of the latter having a broad flange, so that it acted as a cover for the larger one. This flange was perforated. A short tube of tin an inch in diameter projected from the centre of the cover, to which was connected a rubber tube nearly or quite an inch in diameter, through which the patient inhaled. By a set of sensitive and free rubber valves in the tin tube the patient was enabled to inhale from the inhaler and exhale into the atmosphere without letting go the rubber tube. Into the inhaler it was Dr. D.'s habit to put half a pint of boiling water, to which was added the medicament. Inhaling through the tube the air was compelled to pass down through the perforations and up through the fluid.

He was satisfied that in most inhalers the tubes were too small in diameter; they obstructed respiration, which was a disadvantage.

UNUSUALLY LATE CHLOROFORM ASPHYXIA.

DR. F. C. HOTZ reported a case under the above title. It was rare for any serious accident from chloroform anesthesia to occur except during or immediately following its administration. According to Turnbull, in only 10 deaths out of 160 from chloroform did death occur *after* the anesthesia. The case he was to report was one where a small dose of chloroform was given for a short operation.

T. J., æt. 8, was perfectly healthy. He was brought for an operation for convergent strabismus. Having eaten nothing since morning, he was, at 3 P.M., chloroformed, an Allis's inhaler being used. In five minutes he was anesthetized, and the operation was

proceeded with, the inhaler being withdrawn. One eye was operated upon, and Dr. H. had commenced that upon the other, when the boy suddenly began to hiccough and become dusky in the face, and the pupils became widely dilated and fixed. The tongue was drawn forward, the foot of the table was elevated, and artificial respiration, "by rhythmic compression of chest and abdomen," was practised. The hiccough soon stopped, the lividity grew less, and the pupils became movable, and the table was then brought to the level. The hiccoughing immediately returned. The table-foot was again elevated, and the operation, in this position, was finished. In ten minutes the boy became conscious. No nausea occurred.

It was found that only about 30' minims of chloroform had been used, and, by chemical tests, that the article was pure.

In an experience of fifteen years this was the first instance of a short and regular narcosis assuming a serious aspect at a time when the anæsthetic had been discontinued for a number of minutes, and when the patient is usually regarded as out of danger.

THE CHIROPODISTS.

DR. EDMUND ANDREWS read a paper on the above subject.

From a condition of the most ignorant of itinerant quacks, and the most disreputable in their deception practised upon the people, the corn-doctors had, many of them, settled down to permanent residence in communities, and seemed to be trying to develop a creditable specialty. He thought they might attain, by more science and wider knowledge, a position like that of the dentists, with a specialty as legitimate and well-defined.

There were hardly any books or other literature on the subject of their art in the hands of the chiropodists; they were obliged to learn of each other, and not from books. There was quite a literature touching on corns and bunions, and other disorders of the feet, scattered through our medical and surgical writings; but it was very difficult to gather it up, and, it should be confessed, it was of a disgracefully poor quality. Surgeons of world-wide fame had, when touching upon this subject, displayed gross ignorance of pathology. He thought it would be proper for the chiropodists to extend their practice to such disorders as talipes; but as yet they were wholly incompetent to treat such cases. Corns furnished nineteenth-twentieths of their business. Our own books were contradictory as to the definition of a corn. Two growths were confounded under this name. One was a chronic inflammation of the skin, with thickening of the cuticle, and should be called simply a callosity. The true corn resembled a wart on the hand. "The irritated derma sends upward from one to several elongated vascular papillæ, exactly like the minute finger-like papillæ constituting the framework of a wart." There was thrown out about these papillæ "a nodule of hard cuticle, whose circumference merged into the callosity of the adjacent inflamed skin. The pressure of the faulty boot sank the whole mass into the skin and subjacent tissue, so that the bed of the corn was concave. The small mass of horny cuticle surrounding the little column of papillæ was crowded, like a conical nail, into the flesh, while the adjacent callosity spread out like the head of the same. Hence, if a corn was taken out at this stage, there remained a conical-pointed cavity, "and in the central spike may be found papillæ and blood-vessels." Pressure might destroy the papillæ; and

"sometimes the apex of the funnel was occupied by a little cavity containing serum and pus." The art of the chiropodists consisted chiefly in paring the callosities and digging out the central spike, and then obviating further pressure. Their instruments were peculiar. Some had small, chisel-shaped knives, the edges running obliquely across the instrument, and the paring was done by a lateral movement. Some chisels had semi-circular edges. Some operators used narrow and blunt scalpels. "After the corn was removed, a piece of thick, soft buckskin, with a hole in it, is applied around the cavity, and retained by means of diachylon or adhesive plaster. The corns would return in one to six months.

One chiropodist had invented a new operation for ingrowing nails. With the view that the difficulty was overgrowing flesh, and not ingrowing nail, nothing was done to the nail itself; but, at a little distance from the border of the latter, a lanceolate piece of flesh was removed, and the edges of the wound brought together with sutures. The healing in that position drew the overspreading flesh from the border of the nail, and the cure was complete. He thought that operation was one with many sensible features.

The Society then adjourned.

Correspondence.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—At a recent meeting of the Pathological Society, Dr. Beverley Robinson, in some remarks upon sudden pulmonary oedema, suggested that it was an accident which might occur during the operation of thoracentesis, and determine a fatal issue to this operation.* It seems to me unnecessary to suggest possible causes for sudden death under these circumstances, when the cause is so obvious. It is established that, in normal conditions, the expansion of the thorax during inspiration necessarily determines traction outward on all the contents of the thoracic cavity; on the heart, therefore, as well as on the lungs, and in the same direction. This direction coincides with that assumed by the walls of the heart during cardiac diastole, and is directly opposed to that of the same walls in systole. The effective force of each ventricular systole is, therefore, diminished by the oppositely directed force of inspiration. Or, in other words, the force with which the blood is thrown into the aorta and the coronary arteries is a resultant of two forces acting in contrary directions; on the one hand, the force of inspiration tending to draw outward the mobile walls of the cardiac cavities, and the blood contained in the latter; and, on the other hand, the force of the ventricular systole compressing the walls inward, and by thus displacing the contents of the ventricles driving these contents forward.

It may be noted in passing, that, owing to this circumstance, a real intermittence of vascular shock is secured to the brain, since the periodical diminution in the force with which blood is thrown into the cranial cavity coincides with the periodical aspiration of blood from that cavity during inspiration. Such

* See minutes of meeting of May 14th.

intermittence would not exist were it true, as has sometimes been erroneously asserted, that the force of the cardiac systole is stronger during inspiration than expiration, for then the effect of inspiration upon an intracranial pressure would be compensated.

The "negative pressure" ("negativen Druck"), which should thus normally be exercised on the heart, is diminished whenever the expansion of the thorax is lessened, as by pleuritic effusions. The heart, therefore, becomes accustomed to act independently of such pressure, which is equivalent to saying that motor force is not stored up in its ganglia in sufficient quantities to overcome the habitual amount of physiological hinderance which has been removed. When, therefore, this is suddenly restored—that is, when the operation has freed the thorax from the effusion which may have held one of its sides motionless, and the chest-walls begin to expand, they draw not only on the compressed lung, but on the heart, tending by "negative pressure" to arrest its action in diastole. This tendency is not resisted as effectively as in physiological conditions, because by morbid habit the physiological reserve of force in the excito-motor ganglia has been reduced. If the reduction has fallen below a certain minimum, or if the cardiac muscle is degenerated, or if the expansion of the liberated chest walls be sudden, syncope, or diastolic arrest of the heart, is almost inevitable. It is again only a question of degree whether such arrest shall prove permanent, *i. e.*, fatal.*

[*Note.*—Lambert, in a thesis on the method of Waldenburg (Paris, 1877, p. 28), calculates that the negative pressure exercised by pulmonary elasticity varies from 9 to 40 mm. of mercury. This negative pressure adds itself to the positive pressure exercised by the blood—pressure equal to one atmosphere, *i. e.*, 760 mm., and the sum of the forces which dilate the heart and facilitate diastole are thus equal to 809 mm. of mercury. The forces which tend to facilitate systole are represented by the pressure of the intra-pulmonary air, which is 708 mm. in deep inspiration, 759 mm. in calm inspiration, 762 in calm expiration, and 847 in forced expiration. "If we suppose that the glottis were closed during inspiration, then the volume of the cavity would increase without any atmospheric air coming to fill the vacuum produced. It is evident that then all the dilatable organs contained in the cavity would increase in size, and the force of suction exerted on the walls of the heart would be at its maximum. . . . In man, even when the glottis is open, the ærian canal is too narrow to permit the vacuum to be immediately filled; hence partial dilatation of vascular cavities during inspiration. During expiration, on the contrary, air does not pass out rapidly enough; it is partly compressed, and the pressure is transmitted to the external walls of the heart. It is this simple fact which determines the influence exercised on the circulation by the respiratory movements."]

M. PUTNAM-JACOBI, M.D.

DR. J. MILNER FOTHERGILL has written a letter to the *New York Herald*, appealing to American exporters to send cream to London; he thinks it might be a practicable and profitable venture, and it would furnish a much needed article to the inhabitants of London.

* See case in Am. Journ. Med. Sciences for April, 1879, of Transient Syncope during Evacuation of Pleura by Capillary Trocar. The patient ultimately recovered.

PROVIDENT DISPENSARIES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the recent discussions upon Dr. Sturges's paper, in the County Medical Society, the various speakers alluded to what is known as the Provident Dispensary System only to condemn it, while from their remarks it was evident that they were ignorant of its claims, of its growth abroad, and of its undoubted success wherever fairly tried.

The system is briefly this: A number of families living near each other, whose income does not exceed a certain sum, combine to form a society or union for the purpose of obtaining medical relief.

The machinery is very simple. A fixed sum, varying in amount according to the number in the family and the ages of the children, is paid weekly in advance into a common fund. This payment entitles the family to send, in case of illness, for any one of a certain number of physicians, the particular family adviser being previously selected if desired. In most unions, confinements and surgical cases are excluded, or treated at special rates.

At the end of a definite period, usually a year, the books are balanced and the physicians are paid according to the amount of the work done, expenses having been deducted.

The limit of income, beyond which one is not entitled to membership, varies in different unions. The average is about \$500.00 per annum.

This description applies to the Provident Dispensary System of England, which has grown to immense proportions within the past ten years.

It is not a measure for the relief of sick paupers; for them the hospital and dispensary clinics must still open their doors.

It is especially for that class who can, and who ought to pay for their medical treatment, and, I might add, who are willing in most cases to pay when the subject is presented to them fairly, before they have become debauched and medically pauperized by contact with our present disgraceful system of medical charity.

This subject is receiving abroad the attention which its importance demands.

In March, 1870, a meeting was held in London, which was presided over by the late Sir William Ferguson, at which 156 members of the medical profession were present. The following resolutions were passed:

"That this meeting is of opinion that there exists a great and increasing abuse of out-door relief at the various hospitals and dispensaries of the metropolis, which urgently requires a remedy; and

"That it is the opinion of this meeting, the evils inseparable from the system of gratuitous medical relief administered at the out-door department of hospitals and in free dispensaries can be in great measure met by the establishment, on a large scale, of provident dispensaries, not only in the metropolis, but throughout the kingdom, and by improved administration of poor law medical relief."

A large committee was then appointed, which apportioned the subject among four sub-committees: Dr. Meadows, Dr. J. E. Pollock, Dr. A. P. Stewart, and Mr. Spencer Wells, chairmen. Dr. Meadows stated at this meeting that "the probable income of half the out-patients of the London hospitals may be estimated at from £1 to £1 10s. (\$5.00 to \$7.50) a week, and of one-fourth at more than this." I think this would be equally true of New York City.

The various sub-committees appointed, as above stated, patiently and thoroughly investigated the subject. They "found that it was hopeless to endeavor to make people provident while they were educated to dependent mendicant habits at free dispensaries and out-patient departments of hospitals."

In April, 1875, a memorial was addressed to the President and Committee of the British Medical Association by 303 members of the profession, including Sir William Fergusson, Sir William Jenner, Sir William Gull, Sir Rutherford Alcock, Mr. Prescott Hewett and Mr. Erichsen, representing "that the manner in which the hospitals and free dispensaries, with some few exceptions, throughout the kingdom are at present conducted, inflicts a serious injury upon many of the most deserving members of our profession; and while the indiscriminate or almost indiscriminate bestowal of gratuitous medical relief upon all applicants lowers the whole scale of our professional remuneration, it is far from being a real boon to the working classes themselves, and cannot fail in the long run to have a prejudicial effect upon the nation at large."

The leading members of the medical profession one by one gave their final adhesion to the movement, and in April, 1877, a second general conference was held, presided over by Dr. Acland, Regius Professor of Medicine at Oxford, and President of the Medical Council of Great Britain, and attended by Lord Stanhope, Sir William Gull, Sir Rutherford Alcock, Mr. Erichsen, Dr. Guy, and many other distinguished surgeons and physicians.

A paper was read by Sir Charles Trevelyan, presenting a comprehensive view of the subject, afterward published; and the following resolution, moved by Sir William Gull, was carried unanimously:

"That the improvement of the people of London, in health and habits of thrift and independence, demands that, while on the one hand, out-patient departments should be regulated so as to secure the prompt treatment of cases requiring the special resources of a hospital, on the other, free dispensaries should be converted into provident dispensaries, and new provident dispensaries should be established in proportion to the wants of the population."

In some respects, at least, they seem "to do these things better" in England, for happily the present agitation has resulted in corresponding efforts on the part of the hospital authorities.

Last autumn Sir Sidney Waterlow, treasurer of St. Bartholomew's Hospital, convened a meeting of the trustees, chairmen, and treasurers of all the general hospitals, at which it was agreed to make inquiries respecting their out-door departments.

This action resulted in a meeting held at the house of Sir T. Fowell Buxton, on March 21, 1879, which was largely attended by the leading medical men of London.

It was stated by Mr. E. H. Lushington, treasurer of Guy's Hospital, that about 600,000 people came annually to thirteen of the best hospitals in London for medical advice and assistance, at a cost for medicine of £15,000 per year. The average attendance of these patients varied from three to seven hours before each could be attended to, and the rush was so extreme that the medical advice they received was almost perfunctory.

At the same meeting Sir C. Trevelyan, in the course of his remarks upon the same subject, stated that statistics which had been already gathered, proved that "of 600 patients who reported annually to five or six

of the larger hospitals, two-thirds ought not to be patients at all; they were trumpery cases of colds, indigestion, and imaginary ailments."

I fear, Mr. Editor, that I have already trespassed upon your space in this effort to show what has been done and what is being done abroad.

It is true the evil is greater in London than in New York, but is it not well to be wise in time.

I firmly believe the "way out" is by the establishment of true provident dispensaries.

Respectfully yours,

HENRY E. CRAMPTON, M.D.

221 SECOND AVE., N. Y., July 23, 1879.

SACCHARATED CHLORO-PEPSINE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—After a somewhat extended experience with a comparatively new preparation, let me give the readers of "THE RECORD" the results of my observation.

Last summer my attention was attracted to the claims of saccharated chloro-pepsine. Although I had previously been partial to cerium oxalate in the treatment of nausea and vomiting in pregnancy, and as a gastric sedative in other forms of nausea and vomiting, I determined to give the new compound a fair trial. I have had every reason to be well pleased with its action, and have found it equally as efficacious as the cerium alone; in some cases more so, and it possesses the advantages of aiding digestion, preventing "acidity," preserving the appetite, and being palatable.

Extending its field of operation, I tried its effects in a case of nausea, vomiting, and anorexia due to chronic alcoholism. After prescribing other remedies (stomachics, simple pepsine, gastric sedatives) with indifferent effect, as soon as I ordered the saccharated chloro-pepsine improvement began, and the affection promptly disappeared. The same remedy proved equally potent in relapses.

Last summer (especially during the month of August) I tested the value of saccharated chloro-pepsine in infantile summer complaint. In cases where mother's or diluted cow's milk is rejected by the stomach or passed *per anum*, or both, wherein the stools are frequent, green, acid, and ill-odored, this preparation, in conjunction with prescribed nourishment (lime-water or Vichy water, and milk, raw meat, or raw meat-juice), acted very promptly. Immediately its use was begun vomiting ceased, and the stools gradually underwent a change as regards frequency, color, odor, etc., till in a short time the complaint was cured.

As a general remedy in the large proportion of these cases, either alone or combined with minute doses of pulv. rhei, saccharated chloro-pepsine has given me happy results.

Sprinkled upon a teaspoonful of milk or meat-juice, children take it very readily.

Simple pepsine and lacto-pepsine have not afforded as much satisfaction.

The peculiar value of saccharated chloro-pepsine seems to reside in the combination of the pepsine with the other ingredients, whereby a sedative and tonic effect is manifested upon the stomach and bowels in addition to the digestive power of the pepsine.

Unfortunately, it is a proprietary preparation. Inasmuch as its formula is public property, the former

fact need not deter the progressive physician from employing a remedy of much value for certain affections.

NEW YORK.

FRANK D. BRANE, M.D.

THE NATIONAL BOARD OF HEALTH AND HOMŒOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your issue of June 28th was a communication relative to the "National Board of Health and Homœopathy," which it seems to me requires a reply—not for the purpose of discussing the appointment of a homœopath to such a position, but with the intention of showing what claims those calling themselves homœopaths have to such a distinctive title, and whether they are faithful to the principles they profess.

The implied and expressed wish of B. is a reconciliation of the two sects; more explicitly he desires that orthodox medicine recognize the claims of homœopathy to be considered as a legitimate and distinct school of medicine worthy of notice. If any person ought to know and understand the principles and practice of that doctrine, surely it is the founder thereof, *i.e.*, Hahnemann. Now he distinctly and plainly states that (1) the law of *similia similibus curantur* is the *only* fundamental law of therapeutics; (2) the efficacy of medicine is increased by extreme attenuation or dilution; (3) *psora* is the cause of the majority, if not all of the chronic diseases.

To these cardinal doctrines, therefore, any person claiming to be a disciple of his must subscribe and adhere unto in practice and precept; for without this confession of faith he can have no claim to the name of homœopath.

Let us see, by taking their own words as evidence, whether any now deserve the name. First, your correspondent B., whom I believe to be a good exponent of the doctrine as it now exists, says: "*Very many . . . are educated men, educated in both schools, graduate side by side with us . . . yet because they choose to administer their remedies according to the law of *similia* instead of *contraria* . . . we ostracize them. . . . Their practice is no more based upon an exclusive dogma than ours; their educated men do not reject the accumulated experience of the profession . . . their anatomy, physiology, pathology, and organic chemistry are the same as ours; they use the same palliatives as we do. The only point upon which we differ is the administration of remedies.*"

In reply to this I would say that we do *not* ostracize them for administering remedies according to the law of *similia*, but because they attempt to trade upon a *name*; and, if their precepts differ in no essential particular from ours, what right have they to that special name? One of the best homœopathic authorities, J. Kidd, says in his *Laws of Therapeutics*, page 33, "Truth is greater than Hahnemann, and of late years his speculations about *psora* and infinitesimal doses have been tacitly given up by all the most skilful and intelligent of his followers. . . . Adopting with great delight the doctrine of *similia similibus curantur* as the chief, though *not* the *only* foundation for therapeutics, I learned for myself that diseases which too often remained stationary under treatment by globules, were most effectually and quickly cured by tangible doses of the same medicines which failed to

cure when given in infinitesimal doses." Also from the same work, the following extract from an address before the Hahnemann Society in Cincinnati, in 1875: "Some people suppose that a physician professing belief in homœopathic law is obliged to limit his practice to the application of that law. . . . The man, however, who is loyal to nature and to truth regards such restrictions as sheer impertinence, and claims *everything* which cures, be the process explainable or not . . . and if he finds any residuum of truth or usefulness in allopathy or any other system, asks no man's permission to use it."

In 1877, when the homœopaths of Great Britain were making an effort to be admitted to fellowship with the regular profession, the following was written to Dr. Richardson by a leading homœopath: "It is unwise and incorrect to assume the title of homœopath, since we make frequent use of remedies of a simpler kind, such as occasional aperients, anodynes, opiates, anæsthetics, tonics, galvanism, hydropathy, Turkish baths, and mineral waters; finally, the use of the infinitesimal is practically all but abandoned." The leaders of the sect in London also subscribe to the following: "We, the undersigned, believing medicine to be . . . &c. Therefore, the adoption of any theory or practice should not exclude any medical man from the freest professional intercourse, *provided* he does not trade on a distinctive name, nor unprofessionally advertise his mode of practice."

All this certainly is explicit and conclusive. I have shown that the intelligent and educated homœopathic practitioners have practically given up every shred of homœopathy save what they are pleased to call the law of *similia*; also, that most, if not the entire amount of credit which the system of "cure by causation" and infinitesimal doses has attained, has been accomplished by the success of men who, calling themselves homœopaths, practised precisely as other physicians do; but to the laity homœopathy still means infinitesimal doses, and to them the charm of novelty has set up a claim to credit totally undeserved. The law of *similia* as well as that of *contraria* is rejected by the regular profession. Therapeutics cannot now be elevated to, nor do its most enthusiastic teachers claim for it, the dignity of a science. So far as that appellation is applicable, it is still in the primary stage of observation; and here for the present it must remain, giving no adherence to any law, but to the knowledge alone that experienced and skilled investigators have gathered and still are accumulating, which is applied tentatively to each case as it comes before us.

This, however, is not science, for we cannot predict the result by either an algebraic equation or the differential calculus. The human frame is infinitely various, and its limits and variations we know not. Why then should doctrines so crude as those proposed for our acceptance by the homœopaths be received? They make a pretence of still holding fast to the law of *similia*. What law of *similia*, and by whom educated? is the query. The answer is far from satisfactory. Their so-called proofs are worthless; but even were they not, the method of investigation pursued has little homœopathic save its absurdities.

In direct contradiction to "B.," I would assert that they have *no* pathology. To a *TRUE* homœopath, disease, however complicated, is nothing but a bundle of symptoms to which he has only to fit a remedy causing the same succession of sequences as the malady, and the cure is wrought.

Therefore I say, that though there is less of intolerance and more liberality of feeling existing now than

formerly, so long as the alleged followers of Hahnemann arrogate to themselves a distinctive system and name, and unprofessionally trade upon it, so long will orthodox medicine refuse to receive them into its ranks.

G.

OAKLAND, CAL.

Obituary.

REUBEN SPENCER CHAPIN, M.D.

DR. REUBEN SPENCER CHAPIN, a licentiate of the Medical Society of the State of New York in 1849, made an Honorary M.D. of the same society in 1864, died at his residence, 288 East Eighteenth Street, in this city, on Saturday, the 2d inst., in the sixty-second year of his age.

Dr. Chapin was a native of Somers, Conn., where his remains will be taken for burial.

During the last ten years he has suffered from disease of the spine, which became so severe in March last that he was compelled to abandon his practice. He was favorably known, and for many years held the position of warden and treasurer of Grace Chapel, East Fourteenth Street, in this city.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from July 27 to August 2, 1879.

CORSON, J. K., Capt. and Asst. Surgeon. Leave of absence extended one month, with permission to go beyond the limits of this Division. S. O. 84, Div. of the Pacific, and Dept. of California, July 21, 1879.

KANE, J. J., 1st Lieut. and Asst. Surgeon. To proceed to Santa Fé, New Mex., and report to Commanding Officer, District of New Mexico, for assignment to duty. S. O. 144, Dept. of the Missouri, July 26, 1879.

BREWSTER, W. B., 1st Lieut. and Asst. Surgeon. To report in person to the Commanding Officer, Fort Robinson, Nebr., for duty. S. O. 64, Dept. of the Platte, July 26, 1879.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. To repair to Fort Peck, and report thence by letter to Col. N. A. Miles, 5th Inf., for duty. S. O. 81, Dept. of Dakota, July 24, 1879.

THE NEW MARINE HOSPITAL ON BEDLOE'S ISLAND.—The Marine Hospital Service is now establishing a hospital for itself on Bedloe's Island. This island is located in the harbor about a mile below the Battery. It has heretofore been occupied and garrisoned by the War Department. During the war a large hospital existed there, and there are now buildings upon it suitable for a hospital of about one hundred and fifty beds. Three surgeons will be in attendance, Dr. C. N. Ellinwood being surgeon-in-charge. A steam ambulance will connect it with the city. The Marine Hospital Service treats about twenty-five hundred cases a year at this port. Heretofore the patients have been distributed amongst the different hospitals of New York and Brooklyn, the greatest number going to Seaman's Retreat Hospital on Staten Island, and to New York and Brooklyn City Hospitals.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 2, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
July 26, 1879.	0	4	49	1	36	24	3	0
Aug. 2, 1879.	0	5	34	3	44	19	1	0

THE YELLOW FEVER.—Advices from Memphis bring the intelligence that the yellow fever in that city has not yet been declared epidemic. In a former item we stated that according to rule, given by the President of the Board of Health, the disease would be declared epidemic when it caused a weekly mortality greater than that from all other diseases. That point has been reached, but the National Board of Health ordered that it be not declared epidemic, as there was no rule governing such action. The total number of cases to Aug. 6th, are 261; total number of deaths, 74. The disease lingers in the places where it was most severe last year. Physicians are sanguine that the maximum death-rate has been reached.

The disease is in New Orleans, but has shown no disposition to spread rapidly, and hopes are entertained that it will confine itself to one portion of the city. Aug. 6th—Not a suspicious case has developed since July 30th. The victory of sanitary measures seems assured.

On August 2d, two cases from Havana were sent to Lower Quarantine at this port. There are now five cases of yellow fever in the hospital on Swinburne Island, Lower Quarantine. Thirty vessels are now under the supervision of Dr. S. O. Vander Poel, Health Officer. All are from infected ports, most have discharged their cargoes and will be loaded with outward freight while lying at anchor in the bay. One case of yellow fever found its way to one of our hospitals, wherein the patient died, but additional precautionary steps have been taken so as to prevent the repetition of such an unpleasant occurrence.

The authorities of Rome have declared quarantine against all vessels arriving from America, on account of yellow fever in this country.

HAVANA.—The total number of deaths in Havana from yellow fever during the month of July was 537, against 504 for the same month last year. Since the beginning of the year 867 deaths from yellow fever have occurred here, against 813 for the same time last year.

VOLUNTEERS FOR YELLOW FEVER SERVICE.—The order detailing Surgeon W. K. Schofield for inspection duty at Matanzas, Cuba, under the National Board of Health, has been revoked, and Medical Inspector Somerset Robinson is ordered there in his place.

THE BRITISH MEDICAL ASSOCIATION held its forty-seventh annual meeting this week at Cork, on the 5th, 6th, 7th, and 8th insts., R. W. Falconer, M.D., presiding. An address in medicine was delivered by Alfred Hudson, M.D., Professor of Physic in the University of Dublin; an address in surgery by W. S. Savory, M.B., Lecturer on Surgery at St. Bartholomew's Hospital; and an address in public medicine

by Andrew Fergus, M.D., President of the Faculty of Physicians and Surgeons of Glasgow.

The business of the Association was transacted in six sections, including one on public hygiene and one on psychology. In addition, there was a subsection on ophthalmology and otology, presided over by Mr. Jonathan Hutchinson, and one on dermatology, presided over by Prof. McCall Anderson.

A number of American physicians read papers and took part in the discussions.

Dr. Geo. M. Beard read a paper on "Inebriety and Allied Nervous Diseases in America;" Dr. L. A. Sayre opened the discussion on "The Diagnosis and Treatment of Joint Diseases;" Dr. L. Turnbull, U.S.A., discussed "Tinnitus Aurium;" Dr. E. Seguin read a paper on "The Psycho-Physiological Training of an Idiot Hand."

The Association was hospitably entertained by the city, and its work was interspersed with numerous excursions and receptions.

POWDERED ALUM IN THE TREATMENT OF POST-PARTUM HEMORRHAGE.—Dr. Clinton Cushing, of Oakland, Cal., suggests the use of powdered alum in the treatment of post-partum hemorrhage, and bases his recommendation upon the success obtained in the following case: Mrs. B., multip., æt. 37, nervous temperament, general health good, previous deliveries uncomplicated, was taken in labor, which terminated in the birth of a healthy child at the end of six hours. Chloroform, not to exceed two drachms, was inhaled during the last half-hour; the placenta delivered itself promptly; the uterus contracted firmly; and, according to his usual custom, within two or three minutes a teaspoonful of the fluid extract of ergot, with one-sixth of a grain of morphia, were administered. Within ten minutes her face was noticed to be deathly pale, her pulse was imperceptible, the bed was deluged with blood, and the vagina was filled with clots. The doctor introduced his hand into the uterus, which was completely relaxed, and no symptoms of contraction could be induced by combined external and internal manipulation and pressure. The woman was nearly moribund; blood was still oozing away. Cold water poured upon the abdomen from a height gave only negative results. He had no astringents, and there was no ice at command. A package of powdered alum was found in the house, from which he took a handful, closed his hand, introduced it into the uterus, opened his hand, and then spread it over the entire inner surface of the relaxed organ. The effect was immediate; the uterus quickly and firmly contracted; all bleeding ceased, and it did not return. Convalescence was slow, but satisfactory. There was no secretion of milk. The lochia was normal. The after-pains were only slight. The remedy was used "on the spur of the moment," and with a happy result.

REPORT OF PENNSYLVANIA HOSPITAL FOR THE PAST YEAR.—The report of the Board of Managers of the Pennsylvania Hospital for the year ending the 1st of May, 1879, states that in all the departments of the Pennsylvania Hospital 2,144 patients were treated, and 4,122 out-patients, making an aggregate of 6,266 persons relieved, at a cash outlay of \$239,870.74. The number of patients during the year was 620, and 400 remained under care at the close of the report. The report states that since the opening of this branch of the General Hospital, thirty-eight years ago, 7,867 patients have been successfully treated; about 54 in every 100 being males, and 46 females. The expenditure for both branches du-

ring the year was \$188,851.82, which is a slight excess over expenses, of which \$25,004.35 was paid for the support of 53 free patients; besides the free patients many persons have been maintained at a rate less than the average cost of a patient, and the impaired means of support of many of the inmates have caused applications for a reduction of board to be made, which, in proper cases, have been favorably considered; though these concessions were unavoidable, no reduction has been made in the liberal system of maintenance beyond what a prudent economy demands.

The records of the Pine Street Hospital show that 1,672 patients occupied beds in the wards; that 1,524 new cases were received, and 180 now remain under treatment. The entire income from the endowment fund, with other receipts by the treasurer, amounting to \$48,870.19, have been spent in this department. Its expenses amounted to \$51,018.82.

The Out-patient Department reports: New surgical cases, 3,027; new medical cases, 1,095—total new cases, 4,122. Surgical visits, 18,690; medical visits, 2,409—total visits, 21,099. The increase of cases in the year was 294; of visits, 3,232. The number of cases treated in this department since its opening in November, 1872, is 20,097.

The report also states that the Board have arrived at a plan of introducing women student nurses from the pupils of the Women's Hospital into the wards. Each nurse is to remain in the wards twelve months, entirely under the control of the Board, at a compensation of \$13 per month. A thoroughly instructed woman has also been employed as superintendent of the nurses in training, in order that the plan may be rendered thoroughly effectual.

Some applications have been made to know if the Hospital will take charge of invalids needing medical attention for the residue of their lives, with the view of providing them with the comforts of a home. This subject has engaged the attention of the Managers with the hope of organizing a system which may prove to be a valuable aid to the public, and within the proper limits of the design of the hospital.

PUERPERAL CONVULSIONS AND POST-PARTUM HEMORRHAGES.—There have recently been a number of additions to the therapeutics of these conditions. A writer in the *MEDICAL RECORD* has used jaborandi very successfully for puerperal convulsions. In an article in the *Nashville Journal of Medicine and Surgery*, galvanism is claimed to have given equally good results. Fifteen cells were used, the negative pole applied to the os uteri, and the positive to the dorsal and lumbar region. The current was kept up for over an hour.

For post-partum hemorrhage vinegar is extolled very highly by Dr. Penrose in the *Ohio Medical Recorder*. He considers it both antiseptic and astringent. He applies it by saturating a rag with the vinegar, carrying this to the cavity of the uterus, and squeezing it. A writer in the *Ohio Medical Press and Circular* uses a rubber bag with a tube and stop-cock. He inserts the bag into the uterus, and then fills it with warm water; as the uterus contracts it empties the bag. A third method of procedure in these cases is to invert the body while friction and other excitants to uterine contraction are employed.

Dr. THOMPSON, of San Francisco, is in London, showing the profession there his new method of replanting teeth. It is said that he takes them out, keeps them in warm cotton while he fills them or builds them up, and then replaces them.

Original Lectures.

CLEFT PALATE AND ITS TREATMENT.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

By JOHN ASHHURST, JR., M.D.,

PROFESSOR OF CLINICAL SURGERY.

GENTLEMEN—The patient whom I bring before you to-day is suffering from a congenital affection which, though not very common, is sufficiently often met with to render it important for you to be familiar with its pathology and with the means by which it may be remedied. This young man has come from some distance to obtain treatment for a fissure, or cleft, involving the whole of the soft palate, and the operation by which I hope to relieve him is that which is known as *staphylorraphy*, and is a good example of a surgical procedure which, in its modern and successful form, is definitely based upon accurate anatomical and physiological knowledge.

Cleft palate, as no doubt many of you know already, may vary in extent from a slight fissure, involving the uvula only (in which case it is also designated as *bifid uvula*), to a gap implicating the whole of both soft and hard palates, and not unfrequently further complicated by the co-existence of single or double harelip. Unlike the latter deformity, the fissure in cleft palate occupies the median line, except when placed in the extreme anterior part of the mouth, when it passes through the alveolus into one or other nostril, or, in some cases, into both—the so-called intermaxillary bone, attached to the vomer, then projecting into the cleft, and dividing it, as it were, into two parts. Cleft palate is, of course, congenital, and is occasionally hereditary; when not accompanied with harelip, it is often unnoticed during infancy, though sometimes, in its worst forms, by permitting regurgitation of food through the nose, it interferes seriously with nutrition, and then becomes a matter for the surgeon's grave consideration. Usually, however, it does not excite much attention until the child is old enough to talk, when, by preventing distinct enunciation and imparting a peculiar nasal tone to the voice, it leads to an inquiry as to the possibility of obtaining surgical relief.

The age at which an operation may properly be attempted for the closure of a cleft palate is a matter on which some difference of opinion exists. Until within a comparatively few years it was an accepted doctrine that no interference should be recommended until the patient had acquired sufficient age to earnestly desire relief, and to co-operate with the surgeon in the operation and after-treatment. Without the aid of anaesthesia, *staphylorraphy* was a very tedious and painful procedure; and even when the operation had been completed, great fortitude and constancy of purpose were requisite on the side of the patient to keep the parts at rest until union should occur. The unfortunate sufferer was not permitted to talk, eat, or drink, nor even to swallow his saliva, which was allowed to dribble from the mouth, lest the act of deglutition should break up the newly formed adhesions. Even as lately as 1867, Dr. J. Mason Warren, who had probably a larger experience in the treatment of cleft palate than has fallen to the lot of any other American surgeon, had operated but once on a young child, and expressed the opinion that it was generally

necessary to wait until the patient was old enough to fully appreciate the importance of the treatment pursued, and to submit patiently to pain and inconvenience, adding that this was "one of the very few operations" in which the use of anaesthetics was inadmissible. A similar view was for many years entertained by Sir William Fergusson, who, however, ultimately became convinced that the operation might properly be performed at an early age, and that the patient need not be denied the benefit of anaesthesia.

The advantage of an early operation is that if the fissure be closed before the patient has learned to talk, the nasal tone of voice which is so characteristic of cleft palate may probably be avoided; whereas, after an operation in adult life, the improvement in articulation is often very slow, and sometimes much less marked than may have been expected. On the whole, I am disposed to agree with Mr. Holmes upon this subject, and am in the habit of recommending that an operation should be attempted when the child is three or four years old.

Several distinct forms of operation have been suggested for the cure of cleft palate: one, which, under the name of *staphyloplasty*, has been recently recommended by Schönborn, a German surgeon, consists in taking a flap of mucous membrane from the posterior wall of the pharynx, and fixing it between the freshened edges of the cleft; but the operation which is generally adopted, and which I intend to employ in the present case, is a simpler, and, as it seems to me, altogether a more practicable procedure, and is designated, when applied to the soft palate, as *staphylorraphy*, and when to the hard palate, as *uranoplasty* or *uraniscoplasty*. Again, Lannelongue, a French surgeon, has closed a cleft of the hard palate by bringing down the nasal mucous membrane; while, in cases of *bifid uvula*, my friend and colleague at the Episcopal Hospital, Dr. Forbes, has ingeniously imitated Nélaton's operation for harelip, surrounding the fissure with an inverted A incision, and allowing the flap thus formed (which remains attached at both ends) to drop so as to form a diamond-shaped

wound, which then readily closes by granulation.

I have told you that the success of the modern operation of *staphylorraphy* is due to the procedure being based upon a careful study of the anatomy of the parts concerned, and to Sir William Fergusson is, I think, undoubtedly due the credit of having first clearly indicated the essential points of the operation. *Staphylorraphy* owes as much to Fergusson as *uranoplasty* does to Warren. I will not say much to you in regard to the latter operation, as it is not required in the case before us, and as most of you are no doubt familiar with it from your didactic lectures. I will merely remind you that Warren's operation consisted in dissecting up the mucous covering of the hard palate from either side of the fissure, and uniting the flaps thus formed in the median line; that Langenbeck modified this procedure by including the palatal periosteum in the flaps, so as to utilize the bone-producing quality of that structure; and that Fergusson, in his later years, reviving a suggestion of Dieffenbach's, divided the entire thickness of the hard palate on either side with a chisel, and then pressed the segments together, and held them in position with wire sutures.

The history of *staphylorraphy* is one of much interest, and it is curious to notice how various improvements were empirically and tentatively introduced by different surgeons, before Fergusson's demonstration of the anatomy of the palate showed clearly

how a successful result was to be sought for. The first attempt to cure cleft palate by operation appears to have been made by a French dentist, M. Lemonnier, about the year 1760; but, though the experiment was subsequently repeated in two or three instances, staphylorraphy did not become an established operation in surgery until after the occurrence of Roux's famous case, in 1819, just sixty years ago. Roux's patient was a student of medicine, a Canadian named Stevenson; and so wonderful, it is said, was the improvement in his speech after the operation, that his friends with difficulty recognized him as the same individual.

A year or two afterward, Dr. John C. Warren, of Boston, operated successfully for cleft palate in a girl of sixteen, and since then staphylorraphy has been practised and improved by numerous surgeons both at home and abroad. Among those who in our own country have particularly illustrated this branch of surgery, I may mention, without wishing to make invidious distinctions, the Warrens, father and son, in Boston; Mettauer, of Virginia; Hosack and Stevens in New York; and Mütter and the elder Pancoast, in this city.

Though the operation was often, it was by no means invariably, successful; and Velpéau, writing in 1839 (twenty years after the occurrence of Roux's first case), refers to a young girl who had been operated on five times without benefit, and mentions several fatal cases as having occurred in Roux's own practice.

It was soon found that, though a skilful surgeon could without much difficulty bring the edges of the cleft together with stitches, yet it was almost impossible in many cases to keep the parts sufficiently long in apposition for union to occur, the tension upon the sutures being often very great, and the involuntary motions of the patient tending inevitably to make the cleft reopen. Hence Roux introduced the practice of making a transverse incision on either side, along the edge of the hard palate, separating the *velum pendulum* for a short distance, and thus allowing its halves to drop together in the median line. Dieffenbach improved upon this plan by making longitudinal incisions, four lines distant from the edges of the cleft, so that by the gaping of these wounds the tension on the stitches should be lessened. Mettauer substituted for the single incisions of Dieffenbach, numerous small incisions, not all in the same line, and various forms of lateral incision were also resorted to by Liston, Mütter, Pancoast, and other surgeons.

Mason Warren, in 1843, described an important modification of staphylorraphy, which consisted in dividing the posterior pillars of the fauces, and finally, in December, 1844, Fergusson, in a paper read before the Royal Medical and Chirurgical Society of London, and published in the transactions of that body for the following year, showed, from a careful study of the anatomy of cleft palate, that while in the act of deglutition the separated halves of the palate were thrust together by the action of the superior constrictors of the pharynx, the action of the levatores palati and palato-pharyngei tended to draw them asunder, and that hence a division of these muscles would obviate the chief risk of failure in the operation, while after such division the patient might take nourishment freely and without danger, since the action of swallowing would then serve rather to approximate than to separate the parts concerned.

I lay stress upon these points, because efforts have been made to take from the late Sir William Fergusson the credit which is justly his due in relation to this

matter. Undoubtedly great success had been obtained before his demonstration was made public, by Warren and Mütter, in this country, and by other surgeons in Europe, but the success was not by any means constant, and the mechanism by which it was obtained was not understood. Fergusson's mode of practising the necessary myotomy was by introducing a curved knife through the cleft, and cutting the levator palati on either side from the nasal surface, the palato-pharyngei being afterward divided, if thought necessary, by cutting the posterior pillars of the fauces with blunt-pointed scissors, as in Warren's operation. Another plan of proceeding has been introduced by Sédillot, of Strasbourg, and consists in dividing the levator palati by transfixing the palate from below—varying, in fact, the longitudinal incisions of Dieffenbach by placing them more outward and backward—and this plan has been further usefully modified by Pollock, in England, and Guérin, in France, by making the incisions, as it were, "sub-mucous," transfixing and making a sweeping cut from above downward, so as to sever the muscles while respecting the buccal mucous membrane. Still another plan is recommended by Bryant, based apparently on a suggestion of Mr. Francis Mason, and consists in cutting loose the palate on each side, from behind forward, so that when the edges of the cleft have been approximated the whole organ resembles a large uvula.

The operation of staphylorraphy may be considered as divided into three stages, which are respectively (1) the myotomy, (2) freshening the edges of the cleft, and (3) the introduction and securing of the sutures. If Fergusson's plan is to be followed, the myotomy must be either the first or second step of the procedure, and, as this part is sometimes attended with considerable bleeding, it may even be thought well to adopt Callender's suggestion, and divide the muscles on the day previous to that fixed for the remainder of the operation. If, which I prefer, Pollock's modification of Sédillot's plan is to be chosen, the myotomy may be conveniently made the last stage of the operation, or at least may be postponed until the sutures are in place, though they may not have been tightened.

Should the patient be anesthetized? I have no hesitation in answering this question in the affirmative. I have assisted in staphylorraphies performed without the aid of ether, and can testify that under such circumstances the operation is very tedious and painful, and one which is followed by a good deal of shock and exhaustion.

In what posture should the patient be placed? If an anæsthetic be not used, it is customary to adopt a sitting or semi-reclining posture, as better enabling the patient to clear his mouth of blood by spitting; but when ether is employed, the supine position is much more satisfactory, affording a better view of the parts (at least in a room lighted, like this amphitheatre, from above), and allowing the head to be kept perfectly steady during the surgeon's manipulations. There need be no trouble from bleeding if you have an assistant for the special duty of keeping the mouth clear by means of small sponges mounted on sticks.

Great advantage may be derived from the employment of a gag to keep the mouth widely open, and one of the best of the several ingenious instruments which have been devised for the purpose is that which I show you here, and which bears the name of Professor John Wood, of King's College Hospital. To dispose of the patient's tongue, which must be kept out of the operator's way, I know of no better plan than to pass a loop of ligature-silk through its tip, and intrust the

ends (which should be tied together) to an assistant to hold firmly on one side.

For freshening the edges of the cleft, you may employ either a slender knife or scissors. For my own part, I prefer the former instrument, as I do also in the somewhat analogous operation for vesico-vaginal fistula, though I have no wish to decry the value of the scissors in the hands of those who find them more convenient. I find that with the knife I can work more quickly, and I think that it causes less bruising of the tissues.

Your stitches may be of silk, horse-hair, wire, or, indeed, of any material that you may fancy; I do not know that it makes a great deal of difference; but, upon the whole, I prefer a moderately thick silver wire, fastened by clamping on it a tolerably large perforated shot, which is less apt to bury itself in the tissues than one of smaller size. Various complicated instruments have been devised for the introduction of the sutures—some of them, indeed, might pass for portable sewing-machines; but a small, well-curved needle answers every purpose, being held with suitable forceps if silk is to be used, or mounted on a handle if you are going to employ the wire suture. The needles which I show you, and which I intend to use to-day, are, as you see, adapted one for the right and the other for the left side of the palate, and are meant to be passed from below upward, and threaded, after introduction, through the cleft.

While I have been talking to you, our patient has been etherized, and I will now proceed to the operation, trusting that the explanations which I have given will enable you to follow the various steps of my manipulation, of which, unfortunately, most of you will be able to see but little. Having introduced the gag and secured the tongue in the way which I have described to you, I catch one-half of the split uvula with forceps, and, transfixing the edge of the cleft near its angle, cut backward so as to separate a thin shaving of tissue; the same thing is repeated upon the opposite side, and finally the angle of the cleft itself is pared, the mucous membrane being thus removed in one continuous strip. I next introduce four sutures, passing first the left-side needle, which Dr. Hunter threads for me as soon as its eye appears in the cleft; then withdrawing it and repeating the same process on the right side, and intrusting the wires, as each suture is introduced, to an assistant, until all are in place. The next step is the myotomy, which may conveniently be accomplished before the stitches are tightened. Asking my assistant to make the left side of the palate tense by drawing upon the left-hand wires, I transfix it with a double-edged knife just in front and to the inner side of the hamular process, which can be readily felt within and a little behind the position of the last molar tooth. In doing this I take care to direct the point of the knife toward the median line, as an outward thrust might endanger the important vessels in that situation. After transfixion, I carry the handle of the knife upward, so as to depress its blade, which I then withdraw with a sweeping cut, in such a way as to divide the levator palati freely, while saving as much as possible the mucous membrane of the mouth. Repeating the same procedure upon the opposite side, I find that the palate is so thoroughly relaxed that it will not be necessary in this case, I think, to divide the palato-pharyngei.

All that remains to be done, therefore, is to tighten the sutures and fix them by clamping upon the ends of each wire a perforated shot. The patient will be cautioned against talking, coughing, or even swal-

lowing, unnecessarily; but he will be supplied with abundance of nutriment in the form of milk, and the line of sutures will be brushed over every day with a ten-grain solution of nitrate of silver, which, I think, assists the healing process.

[The sutures were removed, beginning with the most anterior, from the fifth to the eighth day, when the whole palate was found to be firmly united, with the exception of a small space in front, which rapidly contracted and healed by granulation. The patient returned to his home, entirely well, on the fifteenth day after the operation.]

Original Communications.

THE HISTORY OF MASSAGE.

By DOUGLAS GRAHAM, M.D.,

BOSTON, MASS.

PART I.

IN almost every city of the United States, and, indeed, of the whole civilized world, there may be found individuals claiming mysterious and magical powers of curing disease, setting bones, and relieving pain by the immediate application of their hands. Some of these boldly assert that their art is a gift from Heaven, due to some unknown power which they call magnetism; others designate it by some peculiar word ending with *pathy* or *cure*, and it is often astonishing how much credit they get for their supposed genius by the most learned people of the land outside of the medical profession. History informs us that rubbing, kneading, percussion, passive and resistive movements have been partly used, in some form or other, among savage and civilized nations, from the most ancient times. To express these various manœuvres collectively, nearly all physicians who take any interest in the matter, foreign as well as American, seem satisfied with the French word *massage*, from the Greek *masso*, I knead or handle. But so little attention has this subject received, that Prof. Billroth, of Vienna, in 1875, and Dr. Wagner, of Friedberg, in 1876, stated that there were many physicians in Germany who had never heard of *massage*, and that it was then an every-day question as to what it meant, some even supposing that Dr. Mezger, of Amsterdam, was the originator of it.* Therefore, it is no wonder that when an article appears on the subject it often gets the credit of being original by many who read it, but overlook the fact expressed so well in the words of Hippocrates, that "Medicine hath of old both a principle and a discovered track, whereby in a long time many and fine discoveries have been discovered, and the rest will be discovered, if any one who is competent and knows what hath been discovered, start from these data on the search. But whoever, rejecting these, and despising all, shall undertake to search by a different track and in a different manner, and shall say that he hath discovered something, will be deceived himself and will deceive others." It is nothing unusual to see clear-headed individuals, uneducated as well as those of extensive learning, evolve from their inner consciousness, so to speak, something

* *Vide Wiener med. Wochenschrift*, No. 45, 1875; *Berliner klin. Woch.*, Nov. 6 and 13, 1876.

or other to meet the exigencies of a case, and then announce the same as a new discovery, when it had been put to similar purposes many times before. Such geniuses, if truly ignorant that their device had never before been heard of, deserve equally as great credit as the original inventors; but what very often detracts from the merits of their case is the fact that they did not stop to inquire whether any one else had ever used the same methods or not. On the other hand, it is not always the one making use of something novel who claims originality, but frequently those who are not so well informed on the subject as he is who claim it for him. In the latter category almost every one has been delighted to find himself placed at some time or other, without any such intention on his part; and it is sometimes an agreeable excuse to let it pass, on the ground that it would not be dignified to inform the admirers of their ignorance. These remarks apply to massage and its advocates, as well as to other matters pertaining to medicine.

The earliest definite information concerning massage appears at about the beginning of the fourth century B.C., in the works of the great Greek physician, the Father of Medicine, Hippocrates. Though his notions, like those of the other ancients, were vague and incorrect with regard to the circulation of the blood (the important discovery of which by Harvey not taking place until more than 2,000 years later, A.D. 1628), yet he used rubbing in accordance with scientific principles, in such a way as to aid and not retard the circulation, as is shown by the word with which he defined the process, viz., *anatripsis*—literally, the art of rubbing up, not down. In this way, doubtless, he had had experience in promoting resorption of effusions, as it is now well known that rubbing the limbs upward favors the return of the circulation, relieves blood-stasis, and makes room in the veins and lymphatics for the more speedy passage of morbid products. After the acute stage of an injury had elapsed Hippocrates applied massage, as we learn from the following words: "The physician must be experienced in many things, but assuredly also in *anatripsis*; for things that have the same name have not always the same effects. For rubbing can bind a joint that is too loose, and loosen a joint that is too rigid, and the joint must be moved about," etc.* Paradoxical as this may seem, yet I have witnessed the verification of it in two cases occurring in my own practice. They have already been reported in the New York MEDICAL RECORD for Aug. 11, 1877. The rationale of this statement, however, is not so paradoxical; for by appropriate rubbing, kneading, and passive motion, atrophied muscles, tendons, and ligaments would have their circulation accelerated and increased, and thus their nutrition and innervation improved so that they would grow larger and firmer, and, as a natural consequence, a joint too lax from such causes would become stronger. In the other case, by the same means, involuntary tension of muscles, adhesions, effusions, and hyperplastic tissue may be removed, and thus a joint stiff from such causes be made suppler.

Furthermore, says old Hippocrates in his aphorisms: "Anatripsis can bind and loosen; can make flesh and cause parts to waste. Hard rubbing binds; soft rubbing loosens; much rubbing causes parts to waste; moderate rubbing makes them grow." These words seem like revelation to any one who has had much experience in massage, and the literal fulfilment of them may be observed when the necessary previ-

ous conditions exist. Hard and soft, much and moderate are, of course, to be taken in a relative sense; for, what might be hard to one person might seem gentle to another.

Vigorous massage, as we might expect, makes soft and flabby muscles firmer. Gentle or moderate rubbing and manipulating loosens not only the abnormally tough and matted condition of the skin and superficial fascia, but also the involuntary tenseness of the muscles, which, if looked for, may often be found not merely locally, but generally, in overtaxed and debilitated people. Such a state of these tissues would often seem to be a physical indication of too great mental tension, which the patient, like his muscles, is unable to relax. And here comes the necessity of a careful discrimination, which Hippocrates evidently appreciated, in using massage; for, if a patient in the condition described should receive such vigorous rubbing and kneading, as is so much advocated nowadays, and which would even seem to be necessary to relax such tissues, his condition would in all probability be aggravated, for reflex action, and consequently still greater tension, would be excited by the pressure of rough friction and manipulation upon terminal nerve-filaments which are already in a state of irritation. An admirable preliminary measure to the use of massage in such cases is the warm bath, for it is grateful and soothing to the patient, solicits the blood to the surface, softens the cuticle, and removes the epithelial debris, as well as relaxes the skin, and to some extent the tissues beneath it.

"Much rubbing causes parts to waste." I have seen people who had a normal quantity of adipose tissue lose much of it, to their detriment, from the excessive use of massage. But even this feature can sometimes be utilized to advantage in cases where fat is superabundant, soft, and flabby, with a want of tone and tension in the areolar tissue. It is well known that tissues, when subjected to great and constant pressure, become attenuated and absorbed; but when acted upon by a less constant and lighter degree of pressure, they increase in thickness. "Moderate rubbing makes parts grow." This implies that the tissues to be rubbed are insufficiently nourished; and moreover, that if they be immoderately rubbed, their vitality will be lessened, their nervous irritability exhausted, and a state of congestion induced highly unfavorable to their proper nourishment.

The ancients entertained sensible views with regard to the maintenance of health. "Not only Hippocrates, but all the physicians and philosophers of that period, knew no better means of strengthening the vital principle and prolonging life than by moderation; the use of free and pure air, bathing, and, above all, by daily friction of the body and exercise. Rules and directions were laid down for giving violent and gentle motion to the body in a variety of ways—hence arose a particular art called the gymnastic; and the greatest philosophers and men of learning never forgot that the body and the soul ought to be exercised in due proportion. This art, to us almost unknown, of suiting exercise to the different constitutions, situations, and wants of man; of employing it, above all, as the means of keeping his internal nature in proper activity, and thereby rendering the causes of disease ineffectual, but also curing diseases which have already appeared, they, indeed, brought to an extraordinary degree of perfection." The gymnastics were divided into athletic, military, and medical. Herodicus of Selivria first proposed gymnastics for the cure of disease; and to such an extent, we are

* Hippocrates, Peri Arthron, Littre, vol. iv., p. 100.

told, did he carry his ideas, that he compelled his patients to exercise and to suffer their bodies to be rubbed; and he had the good fortune to lengthen for several years by this method the lives of so many enfeebled persons, that Plato reproached him for prolonging that existence of which they would have less and less enjoyment.

Nowhere, perhaps, does the wisdom of the ancients appear more strikingly full of truth and meaning than in some of their remarks about massage. The distinguished Roman physician, Celsus, who flourished at the beginning of the Christian era, said that "rubbing should sometimes be applied to the whole body, as when an invalid requires his system to be replenished." "As rubbing is rightly applied after the cessation of an illness, so it must never be used during the increment of a fever, but, if possible, when the body shall have been wholly free from it." "A paralyzed limb is strengthened by being rubbed. If certain limbs only are rubbed, long and powerful rubbing may be used, for the whole body cannot soon be weakened through a part. But when weakness of the body needs this cure over its whole extent, it ought to be shorter and more gentle. . . . Chronic pains of the head are relieved by rubbing the head itself. But far more frequently, when one part is in pain another must be rubbed, and particularly when we desire to *draw matter* from the upper or middle part of the body, and therefore rub the extremities." This is not the place to illustrate these remarks with cases treated with the modern methods of massage, though it could easily be done. However, proceeding onward with the march of time we find that one hundred years later history furnishes a good example of the truth of the first two observations here quoted from Celsus. The health of the celebrated Roman advocate, Pliny, which was never very strong, had been shaken by a severe illness the preceding year, A.D. 102. His life, he tells the emperor in one of his letters, had been in danger. He availed himself of a mode of treatment which it is presumed was much in vogue at that time. He procured the services of a medical practitioner who cured many of his patients by the process of rubbing and anointing. So much benefit did he derive from the remedy, that he asked the emperor to grant the physician, who was either a Jew or a Greek, the freedom of the city and the privilege of Roman citizenship. Cicero considered that he owed as much of his health to his anointer as he did to his physician.

In ancient times rubbing and anointing were much used in connection with the baths, the buildings for which were of great magnificence and luxury during the Roman empire, as their immense ruins yet existing testify. The Roman emperor Hadrian, seeing a veteran soldier one day rubbing himself against the marble at the public baths, asked him why he did so. The veteran answered, "I have no slave to rub me;" whereupon the emperor gave him two slaves and sufficient to maintain them. Another day several old men rubbed themselves against the wall in the emperor's presence, hoping for similar good fortune, when the shrewd Hadrian, perceiving their object, directed them to rub one another!

Martial (A.D. 100) undoubtedly refers to some kind of massage in the following lines:

"Percurrit agili corpus arte tractatrix.
Manumque doctam spargit omnibus membris."

Galen (A.D. 170) recommended friction in a great number of diseases, generally as auxiliary to other means. At Pergamus he was appointed city physician to the school of gladiators. These were rubbed be-

fore and after their exercises and combats: before, in order to increase the elasticity and strength of their limbs; after, in order to stroke away the ecchymoses, relieve the pain of the bruises, and to rest and refresh them from their fatigue.

A great deal more might be said to show that the Greeks and Romans knew well the advantages of friction as a hygienic and as a therapeutic agent. But they were not the only members of the Aryan race who practised rubbing. Strabo states that the Indians contemporary with Alexander, 326 B.C., esteemed friction highly. "In the way of exercise," he says, "they think most highly of rubbing; and they polish their bodies smooth with ebony staves and in other ways." "There are public baths in India which are associated with the practice of shampooing. The bather is extended upon a plank, and a vigorous attendant pours hot water over him, presses and bends the various parts of his body, cracks all the joints, and continues the operation of pouring, pulling and pressing for about half an hour. He then rubs him briskly by means of a hair-brush with soap and perfumes, after which the subject is obliged by his fatigue to sleep a few hours, from which he awakes extremely refreshed. The women in India take a lively pleasure in being shampooed by their slaves; and Europeans, who enter upon the process with a sort of fear, describe the sensation which results as delightful and peculiar."

Much the same practices obtain among the Turks and Arabs. With the Russians flagellation and friction by means of a bundle of birch twigs are resorted to after the subject has been well parboiled in a vapor-bath. A pailful of cold water is then dashed over him from head to foot, the effect of which is described as electrifying. After this he plunges into the snow, and thus tempers himself like steel to endure with impunity his rigorous climate. The Siberians and Laplanders also indulge in similar luxuries.

Having seen that massage has been practised after a fashion by the Greeks, the Romans, and the Hindoos, it is reasonable to suppose that it was also made use of by their common ancestors, the Aryans; so that its origin may well be spoken of as hoary with antiquity, or as some say, lost in the night of time. It may not be amiss, just here, to let history tell us who the Aryans were, and where their original place of abode was. The Aryan branch of the Caucasian race includes nearly all the past and present nations of Europe, and is that division to which we ourselves belong. The Aryans are described as being a fair-skinned, noble people, progressive, practical, and warlike, and it is said that they speedily subdued the country adjacent to them, and also the peninsula of India, 3000 years B.C. The original seat of the undivided Aryan stock was to the north-east of Persia, in the region of the Oxus and Jaxartes rivers. The water of the Oxus is said to have been extremely soft, so as to have made the skin of those who bathed in it glisten. Now, we can imagine that from the pleasant sensation of drawing the hand over the skin in admiration of the effect of the water of the Oxus upon it, may have arisen the practice of systematic friction among the Aryans.

So much for the history of massage in what might be called its period of invention. We will now briefly glance at what might be styled its period of renewal, in the sixteenth century, as but little of interest can be found worth mentioning till that time. Ambrose Paré,* in his works, which were published in 1575,

*It is narrated of Ambrose Paré, the most renowned surgeon of the sixteenth century, that when a young man he hired with a noble family to do the shaving, the surgery, and to read the family prayers.

states that friction was in great esteem in his time. He describes three kinds of frictions, the gentle, the medium, and the rough, and the effects of each. In dislocations he recommends that the joint should be moved about this and that way—not violently—in order to resolve the effused fluids and extend the fibres of the muscles and of the ligaments, so as to facilitate the reduction. From this it is apparent that he knew the influence of passive motion in promoting absorption, the rationale of which has been so well studied of late by German physiologists.

Hoffman, in his *Dissertationes Physico-Medicae*, 1708, says "that exercise is the best medicine for the body." (It is not always applicable, however.) "We cannot imagine," he adds, "how much it is salutary and favorable to health; corporeal exercise excites the flow of the spirits and facilitates the excretions from the blood." He describes the passive, active, and mixed movements of the ancients, as well as the *apotherapeia* or perfect cure, meaning the last part of the ancient gymnastics, which consisted of friction, inunction, and bathing, for the purpose of obviating fatigue and curing disease.

Alpinus, in his *Medicina Egyptia*, says that frictions are so extensively used among the Egyptians that no one retires from a bath without being rubbed. "For this purpose the person is extended, then he is malaxated (manipulated, kneaded) and pressed in divers manners upon the various parts of his body. Passive motion is then given to the different articulations. They are not satisfied with *masséeing*, flexing, and extending the articulations alone; they exercise the same pressures and the same frictions upon all the muscles." The effect of which is thus described by M. Savary: "Perfectly *masséed*, one feels completely regenerated, a feeling of extreme comfort pervades the whole system, the chest expands and we breathe with pleasure, the blood circulates with ease, and we have a sensation as if freed from an enormous load; we experience a suppleness and lightness till then unknown. It seems as if we had just been born, and as if we truly lived for the first time. There is a lively feeling of existence which radiates to the extremities of the body, whilst this is given over to the most delightful sensations; the mind takes cognizance of these and enjoys the most agreeable thoughts; the imagination wanders over the universe which it adorns, sees everywhere smiling pictures, everywhere the image of happiness. If life were only a succession of ideas, the rapidity with which memory retraces them, the vigor with which the mind runs over the extended chain of them, would make one believe that in the two hours of delicious calm which follows we live a great many years."

Shakespeare has not forgotten to mention rubbing and kneading:

IAGO.—My lord has fallen into an epilepsy;

This is his second fit; he had one yesterday.

CASSIO.—Rub him about the temples.

IAGO.—No, forbear;

The lethargy must have his quiet course.

OTHELLO, iv. 1.

AJAX.—I'll knead him; I'll make him supple.

THEOCLUS AND ORESSIDA, ii. 3.

These lines indicate the empirical and the rational use of massage, though the latter was employed in a figurative sense.

(To be continued.)

LITHOLAPAXY, by the method of Dr. Bigelow, has been performed in New York thirty-four times, with three deaths.

PILOCARPIN IN INTERMITTENT FEVER.

By GASPAR GRISWOLD, M.D.,

HOUSE-PHYSICIAN TO BELLEVUE HOSPITAL.

THE treatment of intermittent fever naturally divides itself into measures which have in view the control of the paroxysms, and others intended to prevent the development of the malarial cachexia. For the latter purpose, the sulphate of quinine has been generally adopted by the profession; to accomplish the former, many remedies have been employed at different times, but without any very satisfactory results. It has long been held by good authorities that the development of the cachexia depends in many cases upon the occurrence of a succession of paroxysms. According to this view, the system contracts a habit of having a chill, fever, and sweat periodically; the characteristic anæmia, debility, and lassitude develop as the result of frequent exhausting pyrexias. It is well established that the prevention of the development of a single paroxysm diminishes the tendency to the occurrence of successive ones; indeed, many cases have been reported in which this alone has brought about a cure, no constitutional treatment being resorted to. That the profession has appreciated the importance of preventing a chill is well attested by the long array of measures which have been proposed for this purpose. It has been proposed to tourniquet the limbs, and thus arrest the paroxysm by preventing the congestion of internal organs. Sinapisms have been applied all over the body with the same end in view. Cups have been used over the spine, with the hope that some good result might be obtained from counter-irritation in the region of the nerve-centres. Some one has advocated the application of cold to the surface, believing that the paroxysm would be prevented by the nervous shock so produced. Others have claimed that a paroxysm might be prevented by bringing the patient fully under the influence of alcohol. Violent exercise before the hour when the paroxysm usually commenced has been said to act as a preventive by inducing diaphoresis. More often resorted to than any of the above are full doses of opium, and drachm doses of chloroform, taken internally. All attempts to prevent or abort paroxysms have been thus far so unsuccessful that treatment is now nearly always merely palliative, being simply an attempt to make the patient as comfortable as possible while he is passing through the different stages. After the paroxysm is over, quinine is given in large antiperiodic doses. If the fever be of tertian or quartan type, the next paroxysm may generally be prevented; if it be of the quotidian variety, the chances are about even that another chill will occur.

Now, what is needed is an agent which will antagonize a chill so soon after its administration that it will not be necessary to limit our efforts to preventing the occurrence of a second or third paroxysm, but will be possible to promptly cut short the first. I believe the muriate of pilocarpin to be such an agent. The essential conditions of a chill are a small, hard pulse, peripheral anæmia, and convulsive muscular contractions. Pilocarpin relaxes arterial tension, causes a determination of blood to the surface, and in the progress of the diaphoresis induced by it, brings about muscular relaxation. This theoretical antagonism receives clinical support from the following cases:

CASE I.—John H., thirty years of age, stated on admission to hospital that he had been suffering for two

weeks from malarial intermittent fever, tertian type. He said that his chill usually lasted an hour, and was followed by high fever and sweating. He had never suffered from intermittent fever before, and was not run down or anemic. He had his first paroxysm in the hospital on the day after his admission, the cold stage commencing at 11.35 A.M. The chill was well marked, the teeth chattering, and the whole body shaking violently. Three minutes after his chill was fully developed, pilocarpin muriat., gr. $\frac{1}{4}$ was administered hypodermically. In 1 min. 40 sec. he drew a long breath, like a sigh, his convulsed muscles relaxed, and his chill stopped. A minute later his skin was moist with a slight perspiration, which went on to well-marked diaphoresis, lasting about twenty minutes. No noticeable ptialism was produced, and the diaphoresis was not more profuse than that which ordinarily follows the hot stage of a paroxysm. Forty-five minutes after the cessation of the chill the man's temperature was $99\frac{1}{4}^{\circ}$. He requested to be allowed to leave his bed, asserting that his chill was over, and that he felt all right. He complained of no fever during the remainder of the day. Patient was retained in hospital for two weeks for further observation. At the end of that time, another paroxysm not having occurred, he was discharged cured. The one dose of pilocarpin muriat. was all the treatment he received.

CASE II.—James R., thirty-six years of age, had suffered for one week from malarial intermittent fever, quotidian type. The chills generally lasted about an hour and a half. No history of malaria previous to this attack; general health good. Admitted to the hospital in the afternoon; had a well-marked chill at 9.30 A.M. on the following morning. As soon as the chill was fully developed, pilocarpin muriat., gr. $\frac{1}{4}$, was administered hypodermically. In 2 min. 50 sec. a long sigh of relief (like that mentioned in the preceding case) ushered in general muscular relaxation. Moderate diaphoresis followed, lasting about half an hour. No ptialism. Temperature 99° an hour after cessation of chill. Patient considered his paroxysm at an end, left his bed to go about as usual, and reported that he felt no fever during the afternoon. He had no chill during the next ten days, and was, at the end of that time, discharged cured. He received no treatment beyond the single dose of pilocarpin above mentioned.

CASE III.—Hans E., forty years of age, had malarial intermittent fever, tertian type, for ten days before his admission. He had had chills in former years, but seemed in fair general condition. On the day after entering hospital he had a well-marked paroxysm, which was allowed to run its course without treatment, the temperature being taken every half-hour. These temperatures are here introduced for

the sake of contrast. Two days afterward another paroxysm occurred. This time pilocarpin muriat., gr. $\frac{1}{4}$, was given hypodermically immediately after the commencement of the chill, and the temperature was taken as in the preceding paroxysm.

3 min. 40 sec. after the pilocarpin was given the chill ended, with the characteristic long breath and general muscular relaxation. Diaphoresis was not excessive, and there was no ptialism. Patient felt well half an hour after the administration of the pilocarpin. Remained in the hospital nine days longer without experiencing another paroxysm. Discharged cured. No other treatment than that described.

CASE IV.—Michael C., twenty-eight years of age, had suffered from malarial intermittent fever, tertian type, for twelve days before admission. General health good. Had never had chills before. Had two paroxysms in hospital, treated and observed like those in the preceding case.

1ST PAROXYSM. No treatment.		2D PAROXYSM. Pilocarpin muriat., gr. 1-5, at 11.09 A.M.	
11.15 A.M.	T. $101\frac{1}{4}^{\circ}$	11.05 A.M.	T. 102°
11.45	103°	11.35	$100\frac{1}{4}^{\circ}$
12.15 P.M.	$103\frac{1}{2}^{\circ}$	12.05 P.M.	$99\frac{1}{2}^{\circ}$
12.45	104°	12.35	$99\frac{1}{2}^{\circ}$
1.15 P.M.	105°	1.05 P.M.	$99\frac{1}{2}^{\circ}$
1.45	$104\frac{1}{2}^{\circ}$	1.35	99°
2.15	$103\frac{1}{2}^{\circ}$	2.05	$99\frac{1}{2}^{\circ}$
2.45	$102\frac{1}{2}^{\circ}$	2.35	$99\frac{1}{2}^{\circ}$
3.15	$100\frac{1}{2}^{\circ}$	3.05	99°
3.45	99°	3.35	99°

Chill stopped 8 min. 20 sec. after the pilocarpin had been given. Diaphoresis moderate. No ptialism. Without further treatment patient experienced no more paroxysms during the next ten days. He was then discharged cured.

CASE V.—Carl G., forty-five years of age, had suffered from malarial intermittent fever every summer for several years. Present attack—quotidian type—had already lasted three weeks. Spleen somewhat enlarged, appearance cachectic. Experienced two paroxysms in hospital; these were observed and treated as described in the other cases.

1ST PAROXYSM. No treatment.		2D PAROXYSM. Pilocarpin muriat., gr. 1-5, at 10.15 A.M.	
10.30 A.M.	T. 102°	10.10 A.M.	T. $101\frac{1}{4}^{\circ}$
11	105°	10.40	$102\frac{1}{2}^{\circ}$
11.30	$105\frac{1}{2}^{\circ}$	11.10	106°
12 M.	105°	11.40	106°
12.30 P.M.	$104\frac{1}{2}^{\circ}$	12.10 P.M.	$105\frac{1}{2}^{\circ}$
1	105°	12.40	$105\frac{1}{2}^{\circ}$
1.30	$106\frac{1}{2}^{\circ}$	1.10	$105\frac{1}{2}^{\circ}$
2	107°	1.40	$104\frac{1}{2}^{\circ}$
2.30	$106\frac{1}{2}^{\circ}$	2.10	104°
3	$106\frac{1}{2}^{\circ}$	2.40	$103\frac{1}{2}^{\circ}$
3.30	$106\frac{1}{2}^{\circ}$	3.10	$102\frac{1}{2}^{\circ}$
4	$105\frac{1}{2}^{\circ}$	3.40	101°
4.30	$105\frac{1}{2}^{\circ}$	4.10	$99\frac{1}{2}^{\circ}$
5	105°	4.40	99°
5.30	$104\frac{1}{2}^{\circ}$	5.10	$99\frac{1}{2}^{\circ}$
6	102°	5.40	99°
6.30	$100\frac{1}{2}^{\circ}$	6.10	$99\frac{1}{2}^{\circ}$
7	99°	6.40	99°

Slight diaphoresis and marked diminution in violence of chill took place in 5 min. 40 sec. after the administration of the pilocarpin. Occasional convulsive twitchings occurred for ten minutes more. The chill stopped entirely sixteen minutes after the hypodermic had been given. The sweating caused by

1ST PAROXYSM. No treatment.		2D PAROXYSM. Pilocarp. muriat., gr. 1-5, given at 10.13 A.M.	
10.35 A.M.	T. 102°	10.10 A.M.	T. $102\frac{1}{4}^{\circ}$
11	104°	10.30	$100\frac{1}{2}^{\circ}$
11.30	$104\frac{1}{2}^{\circ}$	11	$99\frac{1}{2}^{\circ}$
12 M.	104°	11.30	$99\frac{1}{2}^{\circ}$
12.30 P.M.	105°	12 M.	99°
1	$106\frac{1}{2}^{\circ}$	12.30 P.M.	$99\frac{1}{2}^{\circ}$
1.30	106°	1	$98\frac{1}{2}^{\circ}$
2	$105\frac{1}{2}^{\circ}$	1.30	99°
2.30	106°	2	$99\frac{1}{2}^{\circ}$
3	$105\frac{1}{2}^{\circ}$	2.30	99°
3.30	104°	3	$98\frac{1}{2}^{\circ}$
4	$102\frac{1}{2}^{\circ}$	3.30	99°
4.30	$100\frac{1}{2}^{\circ}$	4	$99\frac{1}{2}^{\circ}$
5	99°	4.30	$98\frac{1}{2}^{\circ}$

the pilocarpin was very slight, and lasted only a few minutes. A well-marked hot stage succeeded the chill and terminated at about 2.30 P. M. in a sweat. The paroxysm, therefore, was not aborted; it went through its regular stages, although mitigated and lasting a shorter time. The patient remained in the wards for two weeks without having another chill, and was then discharged cured. No other treatment.

N.B.—The diaphoresis in this case was so slight that I was led to the conclusion that I had not given enough pilocarpin (my patient was a very large man, weighing over two hundred pounds). If he had experienced another chill while in the hospital I should have given him gr. $\frac{1}{2}$ instead of $\frac{1}{4}$. Perhaps a more profuse diaphoresis might have aborted the paroxysm in this case as it did in the others.

CASE VI.—Man with malarial intermittent fever, quotidian type. Chill cut short with pilocarpin. After this were prescribed ten grains of quinine in the morning, five grains at noon and evening. Recovery without another chill.

CASE VII.—Woman with malarial intermittent fever, tertian type. Pilocarpin muriat., gr. $\frac{1}{4}$ given hypodermically at about the time when the paroxysm was due, just before the chill had developed. Chill did not occur. Quinine then ordered, gr. v., t. i. d. Recovery without another chill.

From these cases it seems fair to conclude:

1st. That the muriate of pilocarpin, administered hypodermically, will promptly cut short the chill of malarial intermittent fever.

2d. That in a large proportion of cases so treated the paroxysm aborts, terminating in the sweat caused by the pilocarpin, there being no hot stage.

3d. That such abortion of a paroxysm is in itself sufficient to effect a cure in many cases.

4th. That such abortion of a paroxysm is a valuable adjuvant to treatment with quinine during the intervals.

5th. That a dose of pilocarpin sufficient to produce this effect acts gently, without causing exhausting diaphoresis or unpleasant pyalism.

The promptness with which an adequate dose of pilocarpin interrupts a chill is suggestive of its possible efficacy in cases of pernicious intermittent fever, where prevention of the full development of a paroxysm is often of the first importance.

HYDROPHOBIA.

By C. C. GODDARD, M.D.,

TEXAS.

MEPHITIC INOCULATION.

At 6 A.M., May 26th, was called to see I—W—, æt 8, female. Obtained the following history from the father of the patient:

While himself and wife were absent from home, and the child was stopping with his brother's family, she was bitten March 15th, while sleeping on the floor of cabin, on upper lid of right eye and cheek immediately below; the latter point being only slightly abraded. She caught and held the intruder down upon the floor, until her uncle could rise from bed, and start to her rescue; she then released her hold upon it, and sprang into bed. Her uncle at the same moment ignited a match and saw it was a "skunk," which was advancing toward him with apparent evil intent; but the light evidently altered its purpose, as it slowly retreated behind a trunk in the room, where Mr. W— shot it as soon as possible.

Upon being shot, the skunk gave out its characteristic odor very strongly, so much so that they had to vacate the house soon afterwards; the odor was still very strong in the house when visited several days subsequently by the child's father.

Mr. W— excised with a knife as well as he could the bitten portion of eyelid within a half-hour after the attack.

He had no caustic to apply to wound, but applied a poultice of cactus, which applications were still being continued three days afterwards when the parents arrived, accompanied by Dr. W—, another brother of child's father.

The child's hands were lacerated somewhat while holding the skunk, but whether any of the abrasions were made by its teeth they were unable to determine definitely; but thought not.

The doctor remained some time with them, and cauterized two or three watery vesicles that made their appearance on the cheek near the eye; but whether these vesicles were produced by the poison or by the cactus-briers, he (the father) was unable to state, but thought the latter, as there were several of same character upon the forehead afterwards, produced evidently by cactus-points.

The wound healed nicely, and after a few days, during which time she was somewhat depressed (knowing her danger), her spirits rose and she appeared in perfect health. This state of things continued until May 24th, when her father, upon returning home after an absence of several days, at once noted a very peculiar expression upon her face, different from anything he had ever observed there before.

Upon investigation he found that she had no appetite, acted depressed, and had been troubled with vomiting, complaining before and after each emesis of a peculiar itching and burning pain around the right eye. She being somewhat constipated they gave her some "salts," hoping that it was merely a "bilious attack."

The salts operated freely during the night, but she appearing no better, they started next morning, May 25th, for this post dreading lest their worst fears were about to be realized.

Upon examination I found the child lying quietly in bed, pulse rather hard and full, skin dry, tongue coated with whitish yellow fur, and a slight stare to the eyes.

She complained of nothing whatever, said she had no pain at present about the eye or head, acted as though she did not care to be disturbed, and was perfectly rational.

Ordered some small pieces of ice to allay any vomiting.

Visited her again at 9 A.M.; found the ice had relieved the vomiting. Prevailing upon her to sit up in a chair, she drooped her head upon her hands, and persistently kept her gaze fixed upon the floor. Said she wanted nothing to eat, although she had then eaten nothing for over forty-eight hours. When offered food she refused, and turned away her head to avoid seeing it. The mother, by my direction, brought some water in a basin to bathe her face and hands. Having stepped out of the room for a moment, I was called, and told that the child complained of pain every time they attempted to touch her with a wet cloth. I told the mother to try again; she did so, but no sooner did the water touch her face than she had a very well-marked, but not severe, convulsion, clutching at her throat and face.

The convulsion was preceded and accompanied by marked redness about the region of the bite, radiating

over the forehead and down upon the cheek. Convulsions were of the clonic type, laryngeal spasm very pronounced.

Attempted to administer ether, but it only made matters worse. Then gave her $\frac{1}{4}$ grain alcoholic ext. Calabar bean hypodermically. The child being unfavorably situated, owing to the house being quite small and the occupants numerous, I ordered her to be taken to the hospital, where a room was assigned to her, and Steward C. W. Croft gave her the closest attention in seeing the treatment carried out, keeping careful notes of treatment and progress of disease, and seeing that everything was done that could be for her comfort.

11 A.M.—Ordered $\frac{3}{4}$ ij. beef-tea per rectum, which was retained nicely. At 12.30 P.M. took small piece of ice on handkerchief with some trouble. Food being offered upon a spoon, for which she expressed desire, she was again seized with convulsions of short duration. Saw her again at 1 P.M.; had several spasms of milder type.

Administered $\frac{1}{4}$ gr. Calabar bean hypodermically. Pulse 100; temperature $99\frac{1}{2}^{\circ}$ F.

3 P.M.— $\frac{3}{4}$ ij. beef-tea per rectum, but was rejected.

5 P.M.— $\frac{3}{4}$ ij. beef-tea injected and retained.

6 P.M.—Small piece of ice again offered, which brought on spasm, but was finally taken and swallowed with great difficulty.

7.30 P.M.— $\frac{1}{4}$ gr. Calabar bean injected hypodermically.

During the afternoon the patient was more or less delirious. Any one coming into the room excited and threw her into spasms. It worried her to be looked at, and she would shift her position and try to avoid their gaze. She suffered greatly but heroically during the day, but towards evening the agony became so great that she gave frequent expressions to her suffering.

The vomiting, which was allayed for a short time during the morning, again set in and continued until death brought relief. Between the spasms of pain and vomiting she was bathed in a profuse perspiration.

At 8 P.M.—Beef-tea again injected, but immediately thrown off.

8.30 P.M.—Pulse 118; temperature 101° F.

10 P.M.— $\frac{3}{4}$ ij. milk injected per rectum, which produced convulsions of severe type. The last few injections were attended with great difficulty, and were here abandoned, as they only appeared to increase the suffering.

At 1 A.M. $\frac{1}{4}$ gr. morphia sulph., hypodermically, the administration of which brought on the convulsions anew, which assumed at this time a very serious and alarming character, continuing with hardly an intermission for about two hours, requiring at times main force to keep her in the bed. From this time on everything tended to increase her sufferings, a draught of air, opening of a door, touch, look, sight of any glass-ware, all reproduced the seizures.

The countenance expressed great anxiety, excitement, and terror. Had tried several times since the morning to administer ether or chloroform, but every attempt was baffled by such alarming convulsions and laryngeal spasm that it had to be abandoned.

About 3 A.M. the patient became exhausted, with a scarcely perceptible pulse; the convulsions were less in number, but more severe in character. Could not take the temperature, as the thermometer was liable to be broken in the attempt.

At 5 A.M., gave hypodermically $\frac{1}{4}$ gr. morphia sulph., which gave her some slight relief, and she rallied slightly, but only for a short time. She grew rapidly worse, and suffered so much that at 7.30 A.M.

gave another $\frac{1}{4}$ gr. morphia sulph., but with no apparent effect. Nature was, being exhausted, and unable to throw off the accumulations of viscid mucus; and when I again saw her a few moments after injection, she was apparently dying from asphyxia, being at the time under the influence of a terrible convulsion. She was pulseless. Respirations labored—four or five per minute; lips and face of a purplish hue. Administered chloroform, the spasm relaxed, pulse reappeared, color returned to face, respirations became easier and more frequent. This condition of improvement lasted probably one-half hour, at which time another and still more severe convulsion seized her, which chloroform possessed no power to alleviate, and lasted until death closed the scene, and her sufferings were ended.

The characteristic frothy mucus was present from the first, and was expelled in great quantities. Horror of water was typical, even ice produced the same effect; solid food, medicine, everything offered her was productive of the same result. Was not able to give her anything by the mouth, excepting the few pieces of ice already mentioned.

This case is of interest, as showing, in so far as one case can, that the assertion advanced by Dr. J. Janeway, U. S. Army, may be incorrect, viz.: "It is a well authenticated fact that rabid skunks are entirely free from the odor so characteristic of these animals, which could not occur if the secretion was not exhausted, and, forgetting its normal timidity, will attack any person or animal he may come in contact with, etc."

In my case the connections of the patient hoped everything from this theory of the skunk *not* being rabid, as it gave off the peculiar odor; and I have found so far that it is a popular belief among pioneers and hunters that none but odorless skunks are dangerous. I must side with Dr. Janeway, that "mephitic inoculation is not necessarily fatal."

I was visited May 26th by —, woodchopper by occupation, who was suffering from acute diarrhoea. During the interview he spoke of some very queer sensations he had been having, principally about the head; but also affecting his whole body more or less.

I asked him if he had received any injury about the head; said not; and the only injury he had had for some time that amounted to anything, was the bite of a skunk some three years before—at the same time showing me a scar upon the forefinger of the right hand; the cicatrix was very well marked, and of a purplish hue. He said it did not worry him any, although it might possibly have something to do with the way he felt; but thought it amounted to nothing, as the animal when killed gave out the peculiar odor.

Mr. W—, father of my patient, who is a very intelligent man, told me of two cases that had been bitten at his ranch during the last year, and neither having any symptoms.

Also of a third who was bitten near his place since his own child was bitten, and who, he thought, was either going to be affected, or else was in great fear of it, judging from the way he acted.

I know also of a well-authenticated case, when, during a scout (year 1877), one colored soldier and two Indians were bitten by one skunk, neither of the three showing any symptom of rabies, so far as is known. The soldier, who was the first attacked, was bitten through the upper lip, and had to choke the animal to make it loosen its hold; he afterward kicked, clubbed, and finally killed it, not the least odor being given off, but the "timid animal" showing fight to the last.

This man is still in the service, and I know his

never had a symptom. In his case poultices of tobacco and whiskey were applied to wound. It may have been the applications that exempted him, or perhaps by going a little farther we might conclude that the negro is impervious to this poison.

I think, after reading Dr. Janeway's cases and looking back upon my own, that it is simply "hydrophobia" as laid down by authors on the latter malady.

FORT ELLIOT, TEXAS.

Reports of Hospitals.

THE CHILDREN'S HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

THE HYPERDISTENTION OF ABSCESSSES.

This treatment of abscesses, first tried by Mr. Callender, of London, has been tried with excellent effects at this hospital. The cases were both of them in the service of Dr. H. Lenox Hodge. In the first, that of a large femoral abscess in a child suffering with coxalgia, the abscess was first opened with a bistoury, and a large amount of pus discharged by gentle pressure. A five per cent. solution of carbolic acid in water was then injected through a common syringe, with tube attached, so as to completely fill up the abscess to overflowing. This hyperdistention caused a number of cheesy, shreddy, and fibrous particles to be discharged. No constitutional symptoms followed, and no pus to speak of came out on the carbolized oil-dressing afterward. The injection was repeated thirteen days afterward. At no time after the first injection were more than a few drops of pus exuded.

In the second case the results, though fair, were not so immediate and pronounced as in the first case; the temperature showing a constant tendency to rise and the pus still continuing to be discharged.

SERIOUS BURN FOLLOWED BY CONTRACTION OF TISSUE—CURED BY NITRATE OF SILVER AND PRESSURE CAREFULLY APPLIED BY MEANS OF ROLLERS.

J. T. F., *et. 10*, admitted to the hospital on January 14, 1879. This boy was badly burned, both above and below the elbow, and completely around the arm. Before coming to the hospital he had been treated for some six months at his home.

When first seen by the resident surgeon, Dr. J. M. Taylor, the burn was seen to have penetrated the muscles and showed pouting granulations of from two to three inches in diameter encircling the arm. The elbow was much contracted.

When Dr. John Ashhurst first saw the case he thought that amputation would have to be performed. A dressing of oxide of zinc was immediately applied, the discharge of pus at that time being considerable. On the 20th of January, six days after admission, the granulations had very largely diminished under the use of the nitrate of silver, and in some places above the elbow the skin had united, forming narrow patches of healthy epidermis. On January 23rd the granulations were all healing rapidly. On February 16th the arm was entirely cured.

The resident surgeon, Dr. Taylor, took great interest in the case, and each day straightened the arm

out carefully as far as it would go, seeking to make it straighter at each visit. The nitrate of silver was applied with great thoroughness and care, and after each application the arm was bound up pretty tightly with turns of the roller over an oakum pad.

RAPID RECOVERY FROM DEPRESSED FRACTURE OF THE FRONTAL BONE.

The following case occurred in the service of Dr. H. Lenox Hodge: T. C., *et. 4*, while playing on tow-path of a canal, was caught under his chin by the tow-line, and thrown violently down a bank estimated to be about twelve feet high. His head came in contact with a piece of cinder. This accident occurred at 6 P.M. on June 24th. The child was in the hospital by 8 P.M. Upon examination, a depressed fracture of the frontal bone about three-quarters of an inch above the superciliary ridge upon the outer edge of the frontal eminence was found. The wound extended for some seven lines, and was accompanied by much laceration of the soft parts. The pupils were widely dilated. The breathing was stertorous, and the condition that of general hebetude. The boy was not rendered insensible by the fall, but soon afterward lapsed into a comatose condition, only arousing himself to ask for water.

The treatment consisted in the coaptation of the sides of the wound with adhesive strips, and in placing over this a dressing of simple corate. An ice-bag was applied to the head and a simple fever mixture given internally. The temperature immediately upon admission was 99° F. The next morning the boy was bright and cheerful; complained of no pain and asked for food. His pupils were contracted. As a precaution a catheter was passed, but its use was not again required.

June 26th.—Bowels not yet opened. A dose of castor-oil given.

June 27th.—Bowels still inactive, but boy very bright and enters readily into conversation on any topic.

June 28th.—Bowels and bladder both acting regularly. Wound healing. Boy takes nap or two during day and sleeps regularly at night. Patient left hospital soon afterward entirely well.

SCARLET FEVER FOLLOWED BY LOSS OF CO-ORDINATED MOVEMENT AND BY INFANTILE PARALYSIS—BED-SORES, ETC.

R. C., *et. 7*, admitted August 24, 1878. Never had chorea or any other nervous trouble. Was always healthy and strong until he was about eighteen months of age, when he was attacked with scarlet fever. While convalescing from this disease he caught a cold, which was followed by "sore mouth," etc. At that time also he began to lose power of co-ordination of motion and had to be retaught to walk.

In September, 1877, the paralysis began. There were also at that time severe pains in the abdomen, causing the child to scream repeatedly. These pains continued, and attacked the back of the child's neck and head. Ever since then the child has suffered considerably from headache. On the second day after the first symptoms of loss of co-ordination were manifested there was marked retention of urine. The boy was catheterized and has been incontinent of his urine ever since; the urine constantly dribbling away, much to the patient's annoyance. Phimosis exhibiting itself shortly after this; the boy was circumcised on September 8, 1878.

Prior to admission the boy had been treated by blisters to the spine and by electricity. During the

early part of 1878 there was paralysis of both motion and sensation in the extremities. Since admission the patient was treated with iron, quinia, and ergot. Manipulation of the paralyzed parts was also daily practised. This treatment was followed at once by marked improvement. In October of the same year the patient, while under Dr. Pepper's care, had an attack of bronchitis, which was treated by carbonate of ammonium, cod-liver oil by inunction, quinia, and milk-punch. Though recovering from this attack the patient's general health began to fail and his condition became complicated by numerous bed-sores. These increased to such an alarming extent that at the time of writing the head of the boy's left femur is exposed, and almost the whole length of the spine is bare of skin. The treatment at present is only directed towards maintaining life as long as possible.

TRIANGULAR DECUBITUS AS A RESULT OF TUBERCULAR MENINGITIS.

The patient, when admitted on the 20th of January, 1879, was extremely reduced in strength, and his head presented an enlarged, hydrocephalic appearance. His eyes were fixed and staring. His ears, nose, and the sinuses in his neck were discharging a thick, scrofulous pus. His body was much emaciated, and his extremities were constantly in a state of trembling. The decubitus was triangular and very characteristic. Treatment was of no avail. February 4, 1879, the patient was found in his foot-and-head position dead.

Progress of Medical Science.

THE THERAPEUTIC ADMINISTRATION OF LIME-SALTS.—There has been discord between chemists and physicians on the subject of the administration of lime-salts: the chemists denying the possibility of any general action on the system, and practitioners claiming that this action is sufficiently demonstrated by the valuable effects of the prolonged employment of phosphate of lime, or of calcic mineral waters. Perl has endeavored to solve the problem by experiments, which he details in the German *Archives of Pathological Anatomy*. He administered to a female dog a fixed quantity of very dilute chloride of calcium, and minutely analyzed the urine and feces. Without entering into the detail of these difficult experiments, it may be enough to say that the salt administered was decomposed in such fashion that the chlorine appeared in the urine and the lime in the feces. Under the conditions of the experiment, there was a very slight absorption of the lime-salt, which, if accepted, puts an end to the discussion and answers the chemical objections, while it justifies the employment of a method of treatment which, from time immemorial, has been employed by practitioners in rickets and tuberculosis.—*The Practitioner*, July.

EXTIRPATION OF A RETRO-PHARYNGEAL GOITRE.—M. Boeckel, of Strasburg, reports the case of a woman, aged 23 years, who applied to him in November, 1878, for the relief of a voluminous tumor in the right side of the neck, and of a second tumor situated behind the pharynx. The first tumor made its appearance in 1875, but only commenced to grow rapidly in the early part of 1878. The respiration was not impeded. The skin of the neck was tensely stretched, but was of a normal color. The larynx was crowded to the left.

There was neither pain nor fever, but the movements of the head were impeded. A cyst of the thyroid gland was diagnosed and evacuated, but the retro-pharyngeal tumor was not affected by the operation. As the cyst soon filled again, a radical operation was performed in December. An incision, four and a half inches long, was made along the anterior border of the sterno-mastoid muscle under the carbolic spray, and the cyst was punctured with a bistoury, drawn out and removed. Ten ligatures were required to control the hemorrhage. The retro-pharyngeal tumor was removed with the large cyst, and was found to be a cyst connected, but not communicating, with the larger cyst. M. Recklinghausen, who examined the cysts, believed that they were formed at the expense of the thyroid tissue. In January the wound had closed completely, and the patient was discharged cured.—*La France Médicale*, April 12th.

IMPROVEMENT OF AN OLD OPACITY OF THE CORNEA UNDER THE INFLUENCE OF A GONORRHEAL OPHTHALMIA.—Dr. Chevallereau reports the following case: A man, who presented a large opacity on the right cornea, dating from his childhood, was subject to attacks of subacute blepharitis, which, in accordance with a popular prejudice, he treated by bathing the eye in his own urine. The last time he had occasion to use this treatment he happened to be suffering from gonorrhœa, and the result was a violent attack of gonorrhœal ophthalmia. This dangerous complication yielded to an energetic treatment, and the patient then found that he could see better than before. Examination showed that the opacity has diminished very markedly, both in size and in density.—*Annales de Dermat. et Syph.*, vol. x., No. 8.

THE ACTION OF SCLEROTINIC ACID ON MEN.—The investigations of Nikitin seemed to demonstrate that sclerotinic acid could be substituted with advantage for ergot, in all cases in which the latter is now employed, but the following *résumé* of the results obtained by Dr. Kobert, of Halle, from an extensive trial of the acid, show that its supposed advantages are, to say the least, exceedingly problematical:

1. In severe pulmonary hemorrhages the remedy, given in doses of three grains five times a day, proved absolutely inert. In the case of a patient who expectorated daily for two months a small quantity of blood, the effect of the acid was exceedingly doubtful, and by no means so marked as that of ergot. Subcutaneous injections of a grain and a half, both of the free and of the neutralized acid, caused intense pain, and violent inflammation of the skin requiring the constant local use of ice for several days.

2. In a case of chronic multiple hemorrhages into the skin and the mucous membranes, the acid, in doses of fifteen grains *pro die*, proved entirely useless.

3. In two cases of disease of the spinal cord, with spastic manifestations in the lower limbs, the acid was administered for weeks without the slightest improvement in any of the symptoms. At the most, the urine was increased slightly in quantity.

4. In a case of Basedow's disease, the first powder (three grains) caused such restlessness and cardiac anxiety, that the remedy had to be discontinued at once.

5. In the cases of two tabetic patients, as well as of several other persons, to whom the drug was administered for the sake of studying its action on the subjective condition and on the central nervous system, it was given for several weeks without the slightest effect. No person could be persuaded to submit to a continued subcutaneous administration of the drug.

6. A woman, who took the acid continuously for over three weeks, complained on the first day of the fourth week of formication in both great toes, and on the following day in both little fingers also, which rapidly increased to complete numbness of the affected parts. When the drug was discontinued the symptoms disappeared, but they reappeared as soon as the former doses were resumed; smaller doses, however, were borne without difficulty.

To exclude the possibility of failure from impurities in the acid, a fresh preparation was made in Halle, with all possible care. On animals this fresh preparation produced the effects described by Nikitin, but on men it proved as inert as the ordinary drug. In no case did it produce contractions of the intestines, abdominal pains, or diarrhoea; an action on the uterus seemed also wanting.—*Centralblatt für Gynäk.*, May 10th.

NITRITE OF AMYL IN CHLORAL POISONING.—The antagonism between nitrite of amyl and chloral hydrate is well illustrated in the following case of chloral poisoning, related by Dr. Coghill in the *British Medical Journal*, June 28th. A gentleman, aged sixty-two, late in the evening of April 23d, took a large, but unfortunately unascertained dose of his favorite anodyne, chloral. Within a few minutes he became completely insensible. When Dr. Coghill saw him, two hours later, artificial respiration had been kept up for some time, with the effect of inducing feeble, gasping respiration, at the rate of four per minute; surface was cold and deeply cyanosed; pupils strongly contracted; pulse eighty, full, but soft and compressible. Twenty drops of nitrite of amyl were administered by inhalation, which induced an immediate return of warmth and natural color to the surface, even of the extremities. The respirations became deeper, and gradually increased in frequency. The amyl was repeated in a smaller dose in about two hours, with permanent effect. The next morning the general condition had improved, but consciousness had not returned. It was found impossible to administer nourishment by the mouth, and nutritive and stimulant enema were consequently resorted to. After the second enema he became sensible, recognized and spoke to those around him, and swallowed some food with little trouble. He continued to improve until 9 p. m., when he suddenly started up, as if from sleep, and fell back dead.

Dr. Coghill accepts Liebreich's theory of the decomposition of chloral in the system into chloroform and formic acid, attributing its effects to the chloroform. The state of the pupils, he thinks, depends upon the manner of administration: as with chloroform, when an overdose is taken, the respiratory centres are paralyzed, the pupils *contracted*, but the pulse not affected; but when the poisoning is due to too frequent repetition of smaller doses, the cumulative action of the drug is manifested, and we find the heart yielding earlier than the respiration, and the pupils *dilated*. He suggests that nitrite of amyl will be the appropriate remedy, when the drug has been administered in such quantities as to act rapidly on the respiratory centres, *with contracted pupils*, and that strychnia should be given when the drug has acted slowly as a cumulative poison, when the heart has succumbed, *and the pupils are found dilated*.

FARADISM AND SUSPENDED ANIMATION.—Dr. Althaus recommends the faradic current as a test for suspended animation. Three hours after death, every trace of farado-muscular irritability is found to have disappeared, and the most powerful current will re-

main absolutely ineffectual; while in suspended animation the muscles respond freely to a current of moderate force.—*The British Medical Journal*, June 28, 1829.

BEEF AND ICE CREAM.—Dr. Tucker recommends a combination of beef and ice cream as an article of diet for invalids. He uses cream, 120 grms.; sugar, 30 grms.; ext. vanilla, 8 grms.; beef-juice, 8 grms. Johnston's beef-juice was generally used, but that squeezed from a beefsteak will answer. Any confectioner can make it, or it can be prepared at home.—*The Chicago Medical Journal and Examiner*, July, 1879.

ETIOLOGY OF ALOPECIA AREATA.—Dr. Hans Büchner contributes his share to this vexed question. His conclusions are as follows:—1. The hypothesis that the loss of hair in alopecia areata is due to faulty innervation of the trophic nerves, is untenable on anatomical and physiological grounds. 2. The theory which attributes the disease to diminished nutrition with lessened growth of the hair is no explanation, but only a description of the affection. 3. The fungus theory is the only one which is justifiable in the present condition of our knowledge. The lack of microscopic proof of the presence of fungi up to the present time does not invalidate this hypothesis, because, under present circumstances, small single-celled non-colonized schizomycetozoa may escape observation. Certainty in this question can only be attained by careful researches in cultivation together with inoculations.—*Philadelphia Medical Times*, July 19, 1879.

QUININE IN GOUT.—Dr. Schoenemann has used quinine to cut short the paroxysms of gout, over which disease it has, in his estimation, as much power as over intermittent fever. From among the half-dozen cases he has treated with this drug he gives the notes of one, a typical case. For two days and nights the patient had suffered so intensely as to be deprived of all sleep. On the third evening Dr. Schoenemann was called in, and endeavored ineffectually to relieve pain and induce sleep by fifteen-minim doses of tinct. opii every half-hour. The next day the joint was painted with tr. iodi., and quinine sulph., grs. xv., with sodæ bicarbonat. 3 ij., given in divided doses during the day. Patient slept all night, having only occasional and light darting pains; in the morning he got up, put on his boots and attended to work without suffering any inconvenience.—*Pacific Medical and Surgical Journal*, July, 1879.

EARLY SYPHILITIC AFFECTIONS OF THE NERVOUS CENTRES.—Prof. Mauriac closes a long and able paper on this subject, with the following deductions from the facts and researches at his command:

1. Syphilis may attack the nervous centres at a very early period after the initial lesion.
2. The early cerebro-spinal lesions are those which develop during the virulent period of the malady, that is to say, during the first two or three years.
3. There are degrees in this precocity of the cerebro-spinal syphiloses: the first include those which set in within the first twelve months; the second those which develop in the second or third year of the constitutional malady. Statistics seem to show that those of the first degree are more common than those of the second.
4. Among the early visceral localizations of syphilis, those in the cerebro-spinal system are incomparably the most numerous.
5. They are also the most dangerous. Their gravity does not increase with their diathetic age; those which

develop during the first months of syphilis are as formidable as those which belong to the more advanced stages of the malady.

6. All the forms, all the degrees, all the phenomenal combinations that constitute the symptomatology and the processes of the localizations of syphilis in the neural system, are met with in the early as well as in the late cerebro spinal syphiloses.

7. Certain symptomatic complexes, however, seem to predominate. The most frequent are those which consist in an attack of hemiplegia, involving the whole of one side of the body.

8. Among the attacks of hemiplegia, the syndrome comprising right hemiplegia and aphasia is the most common.

9. The paralytic forms are much more common than the convulsive or epileptic, in the early cerebral syphiloses.

10. In the cerebro-spinal syphiloses the psychical troubles and the inco-ordination of movements are never systematized as they are in mania, general paralysis, and locomotor ataxia.

11. The absence of systematization in the cerebro-spinal syphiloses must be regarded as one of their chief characteristics. The only exception is in the case of the syndrome of right hemiplegia and aphasia.

12. Early localizations of syphilis in the spinal cord are much less common than in the encephalon.

13. The lesions which seem to belong to the early cerebro spinal syphiloses are diffuse or, more frequently, circumscribed hyperplastic effusions into the cortical layer of the brain and the pia mater, and changes in the Sylvian arteries with consecutive ischæmic softening.

14. In some cases of early cerebro-spinal syphiloses that terminated fatally, no lesion was found, but at that time the existence of arterial syphilis had not been recognized. It may be presumed that death had resulted from sudden anæmia of the nervous centres that are essential to life.

15. With regard to the etiology of the early cerebro-spinal syphiloses, only very vague conjectures can be advanced. In most of the cases, the initial lesion as well as the consecutive cutaneous and mucous manifestations were very mild in character.

16. The general cause of the constitutional malady is not modified by the appearance of early localizations in the nervous centres. The other manifestations develop before, during, and after the localization in the neural system, without presenting any deviations from their usual forms, degrees, course, or topography.

17. The precocity of the cerebro-spinal syphiloses furnishes no special indication with regard to treatment. Whatever may be the age of the constitutional malady, the localizations in the nervous centres demand the same specific medication. The peculiar conditions of each case furnish the secondary indications relative to the choice, doses, and combinations of the two specific agents.—*Annales de Dermatol. et de Syphilis*, Vol. X., No. 8.

ON THE TREATMENT OF CHOREA.—Dr. Hayden believes the attack is in most cases directly traceable to fright or other emotional excitement of a depressing character, operating upon a feeble and nervous constitution, at a period of life when the receptive faculties are most sensitive. He therefore concludes that phosphorus and strychnia combined—the former a nerve nutrient of recognized value, and the latter a nerve tonic of great potency—may prove efficacious in the treatment of chorea. As yet his experience of this plan of treatment has been very limited, extending

only to three cases, but so far it has been eminently satisfactory. The strychnia and phosphorus were administered in 8 M. doses of the liquor and ethereal tincture, thrice a day, so that the total amount of each drug given was 9 M. The patients were children of nine to eleven years of age.—*The Practitioner*, July, 1879.

THE THERAPEUTIC VALUE OF HYDROCYANIC ACID.—Dr. Macdonald calls attention to the value of hydrocyanic acid in arresting the night cough of children. In a case of sixteen months' standing, where the bromides and change of air had been prescribed in vain, relief was afforded in forty-eight hours by the administration of the acid. The good effects of the remedy were especially apparent in the night attacks. It was particularly noticed that, when a paroxysm came on, it ceased suddenly and unexpectedly five minutes after each dose. Within a week a cure had been effected, and the patient is now in the full enjoyment of robust health.—*The Practitioner*, July, 1879.

PREPARATION OF IMITATION KUMYSS.—Fill into a strong champagne bottle good, fresh unboiled cow's milk to such a height, that after the addition of 30 grammes (1 oz.) of sugar, there may still be at least an inch of empty space below the cork. Before corking, add a piece of fresh compressed yeast, or a teaspoonful of good beer-yeast. The contents of the bottle must be well shaken repeatedly, and then placed in the cellar, where they are to be turned up and down a few times during the day. The mixture is ready on the fifth day, and may be drunk to about the twentieth. It is best to prepare about six bottles at a time, refilling each after being emptied, so that the treatment once commenced may not be interrupted. Care should be observed in opening the bottles, as the contents are apt to foam over. A good milk-wine, or kumyss, should have a homogeneous appearance and the consistency of thin cream, should effervesce when poured out, and be of an acidulous, agreeably vinous odor and taste; it should not be full of lumps, or taste like buttermilk. At first it produces looseness of the bowels, but this effect soon passes off.—*New Remedies*.

SYPHILITIC POTT'S DISEASE.—M. Verneuil showed at his clinic a child suffering from caries of the spine, which he considered to be of syphilitic origin. The previous history of the case was imperfect, but the evidences of the constitutional taint were convincing. Attention was called to the rarity of, and difficulty of diagnosing this affection, and mention was made of a similar case occurring in the same service. In the last case the happy influence of specific treatment confirmed the diagnosis. Preparations were also shown which demonstrated the gummy infiltration into the vertebral substance. The diagnosis in these cases is always uncertain; some peculiarity in old cicatrices, or in the openings of fistulæ, or the condition of the glands, is sufficient to call attention to the possibility of the syphilitic diathesis, and is the indication for treatment.—*Annales de Dermatologie*.

CHICAGO MEDICAL JOURNAL AND EXAMINER.—Drs. F. C. Hotz and E. F. Ingals have retired from the editorial staff of the above journal. Their places are filled by Dr. N. S. Davis, Dean of the Faculty of the Chicago Medical College, and by Dr. D. R. Brower, one of the Faculty of the Woman's Hospital Medical College of Chicago.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 16, 1879.

LITHOTRITY WITH EVACUATION OF THE FRAGMENTS.

I. THE DEVELOPMENT AND PRINCIPLES OF THE OPERATION.

THE recent modification in the method of treating stone in the bladder by lithotrity, with which the name of Professor Bigelow is so prominently associated, bids fair to make lithotomy a rare operation by notably restricting its field of application, and to diminish the proportion of cases in which patients return with a second stone developed about an unremoved fragment of the first. The great objection to lithotrity as heretofore practised—that is, by repeated crushings of short duration, at intervals of a few days, with unaided escape of the fragments through the urethra—lay in the fact that the large sharp fragments retained in the bladder sometimes tore and bruised it to an extent which not only aggravated the pain and distress of the accompanying cystitis, but actually imperilled the life of the patient. Lithotomy, while free from this objection, involved the risks incident to an extensive incision through important parts. The new method of lithotrity happily avoids the risks of the old method and of lithotomy, by removing the stone at a single sitting without the aid of the knife. Its field, therefore, embraces all the cases which could be properly treated by the old method, and in addition many of those which it was formerly considered safer to treat by lithotomy. It seems probable that the latter operation must now be restricted to cases presenting some important urethral or prostatic complication, and to the removal of very large hard stones and of stones in infants and youths whose urethras are too small or too sensitive to allow of prolonged instrumentation. Fortunately, this latter class is the largest of the three, is the one in which the risks of lithotomy are lowest, and is that in which the rate of mortality is very small. As the supra-

pubic operation has been considered the safest for exceptionally large stones, the rule of treatment, according to our present knowledge, is: perineal lithotomy for the young and some specially complicated cases; supra-pubic lithotomy for exceptionally large hard stones; rapid lithotrity, with evacuation, for all others. The outcome of Prof. Bigelow's modification then, is to enlarge the field and diminish the risks of lithotrity. Let us see in what the modification consists, and how it has been brought about.

The rule of practice in lithotrity was to retain the lithotrite in the bladder for not more than two or three minutes, during which time the stone was to be caught and crushed as frequently as possible. Then, after an interval of a few days, during which the patient passed unaided, and with more or less pain and anxiety, such fragments as might be carried through his urethra by the stream of urine, another short crushing, and so on until all was removed. The first formal step in the road which has led to the present mode of operation was made about fifteen years ago by Mr. Clover, and was an attempt to remove the fragments through a catheter immediately after each crushing. He devised a rubber ball and glass attachment to be filled with water and fitted over the end of the catheter in such manner that by alternately compressing and relaxing its sides, the water could be forced into the bladder and sucked out again, bringing with it the fragments. The idea—an old one, moreover—was essentially the same as that of the washing-bottles now in use, but the instrument was inferior to them in not properly preventing the return of fragments into the bladder after they had been once drawn out. The catheter entered at the most dependent portion of the bulb, and although its end projected one or two inches into the bulb, the adjoining portion of the latter was so narrow, and the currents so vigorous, that this was an insufficient protection. Nélaton substituted a metallic pump for the rubber bulb, increasing the already too great suction of Clover's stiff ball, and Tillaux hung a perforated valve over the end of the catheter to remedy a minor defect, but the instrument remained generally ignored and unsatisfactory, not simply because it did not properly do the work expected of it, but because that work was relatively insignificant and unimportant. It was practically valueless because it was not associated with immediate and complete fragmentation of the stone. Moreover, it contained no new and important principle, and was a commonplace adaptation of common mechanical means to obtain a result which could be, and was, equally well obtained by the use of a catheter and syringe, with or without pressure upon the abdomen during the escape of the injected water.

The next modification was an attempt to shorten and dilate the route to the bladder, and remove the stone at a single sitting by the use of powerful litho-

clasts. This modification was Dolbeau's *perineal lithotripsy*. He cut through the perineum to the membranous urethra, dilated the prostatic portion of that canal, crushed the stone, and washed out the fragments. This met the indication of removing the stone at a single sitting, but it involved an incision and violence to the neck of the bladder, which were only somewhat less severe than those incidental to lithotomy. It was, in fact, a modification rather of lithotomy than of lithotripsy, and, notwithstanding its ardent support by Dolbeau, it was received but coldly.

The final step was taken by Prof. Bigelow, and it is interesting to note how in this case, as in so many others, men have played about a great fact until at last one of them fairly stumbles upon it in his search for something else. In using this expression we do not mean to detract in any manner from the credit which belongs to Prof. Bigelow. He saw the fact, recognized it, and promptly made use of it. The fact was the tolerance of the bladder to the use of instruments within it. This tolerance, the fact that a lithotrite can be worked for an hour or two in the bladder without inflicting serious injury upon it, is the centre upon which the new method rests; and beside it, all modifications in the jaws and handles of lithotrites, and in the shape of washing-bottles, are matters of minor importance. That this tolerance should have remained so long ignored is to be explained only by the benumbing effects of authority and tradition. The teachers said: "Never retain a lithotrite more than three minutes in the bladder," and that dictum ruled lithotripsy so nearly to its ruin that Sir Henry Thompson, less than eighteen months ago, declared in the discussion in the Royal Medico-Chirurgical Society, following his report of 500 cases of stone, that it should be restricted to the treatment of such stones as could be removed in two or three crushings; and Sir James Paget, in the same discussion, said the rule should be lithotomy, lithotripsy the exception.

Many lithotritists went beyond the three-minute rule, but they did it only occasionally and, as it were, under protest; lithotomists spent half an hour sometimes in the search for fragments; perineal lithotritists spent even more in crushing and washing; general surgeons tied catheters into the bladder, and all physicians were familiar with the fact that a stone might lie in the bladder for months without giving rise to cystitis, and yet no one, until Prof. Bigelow, drew what seems now such a palpable inference. Sir Henry Thompson claims that he did so; but, so far as we can judge, he did no more than many others; that is, he departed, in exceptional cases, from the rule of short sittings, and was perhaps drifting slowly, as were also others, toward more prolonged crushings under ether; but it was only a drift, and was very different from Prof. Bigelow's sudden recognition of a principle of general application.

Prof. Bigelow, feeling the necessity for removing

the fragments after a crushing, set himself to improving the washing apparatus, and did it in the very efficient manner to be hereafter described. In his first case there were three sittings at intervals of seven and twelve days. At the first sitting he crushed and did not wash; at the second he crushed under ether and washed, removing "a large mass of fragments;" at the third he crushed again, apparently, and washed, removing "a few fragments." Up to this moment he had done only what he and others had done before in exceptional cases, he had largely overstepped the rule of short sittings, and, in addition, he had washed with an effective apparatus. But in doing this he had encountered and recognized the fact of the bladder's tolerance, and he profited by it to remove the stone in his next case, five months afterward, at a single sitting. He had then enunciated the principle; he had put lithotripsy upon a new basis; he had *fait école*.

It is singular, in view of the paramount importance of this principle, to see Prof. Bigelow insist so strongly upon the merits of certain of his instrumental details and modifications, an insistence which only draws attention away from the principal and most meritorious point. What earthly difference can it make to him whether it is generally considered easier to lock the lithotrite by a turn of the wrist or by a movement of the thumb, when both are so easy? or whether others use a male jaw with lateral grooves, or a female jaw with a large fenestra, provided neither becomes impacted? These are matters of individual appreciation or preference which he can certainly afford to disregard.

In like manner, the attempt to give the operation a new name conveys a doubt of its ability to force recognition of what is original in it, and implies a failure to appreciate its real position. The right of the *method*, which includes all the various *procedures* for crushing a stone, to the name lithotripsy is established by the baptism of its originator and the acceptance of all surgeons, and this latest modification, which departs in no manner from its central idea, but only perfects its processes and enlarges its field of usefulness, is the natural heir to the title and to the honors of its predecessor. There can be no question but that in due time when "lithotripsy" is spoken of, the removal of a stone at a single sitting will be meant, and Prof. Bigelow's connection with it does not need to be fortified by the substitution of a new name for the old one. Indeed, the new name seems to have been an afterthought, inspired five months after the publication of Prof. Bigelow's article by a case in which he removed a large number of small calculi without crushing them, an operation for which, if a new name is needed, *litholapaxy* (evacuation of stone) is certainly well chosen.

It is too soon to speak of the mortality of the new method except from a theoretical standpoint. Bigelow has reported only eight or ten operations; Van Buren

and Keyes twelve or thirteen. All of these, with one exception, we believe, were successful. The most that can now be said is that as the operation inflicts the minimum of violence, and, by removing the stone at once and completely, places the bladder immediately in the most favorable condition for recovery, it avoids the most important dangers of the previous methods. It will diminish the mortality in the cases heretofore treated by lithotripsy, because it will save those in which a fatal issue is the consequence of the irritation caused by the sharp fragments; and it will save many of those cases which would have died under lithotomy from loss of blood, shock, or pyemia. The theoretical reasons for believing in its value were authoritatively presented in the very able and interesting paper upon this subject which Prof. Van Buren contributed to *THE RECORD* about a year ago, and in which, referring also to the above-mentioned opinions of Sir James Paget and Sir Henry Thompson, he showed how extensively they would require to be modified in view of the advantages offered by the new method of lithotripsy.

Sir Henry Thompson's open letter to Dr. Van Buren, published in *THE RECORD*, May 24, 1879, shows how thoroughly he appreciates these advantages, and his claim to a share in the credit of the introduction of the method is a none the less sincere compliment for being, in our judgment, unallowable. The credit belongs to Prof. Bigelow and to America, and it gives us much pleasure to mention in this connection the hearty and generous reception of the new method by the lithotritists of our own city.

We propose to consider at another time the different instruments employed in the operation.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 28, 1879.

DR. JOSEPH W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

RENAL CALCULI OBTAINED FROM CAMELS.

DR. LIAUTARD presented specimens of renal calculi which he had removed from the kidneys of camels.

IRREDUCIBLE DISLOCATION OF INDEX PHALANX.

DR. FRED LANGE presented a patient on whom he had performed, for an irreducible dislocation of the first phalanx of the index upon the dorsum of the metacarpus, the operation of opening the joint and lifting the interposed capsule. The smallest possible cord of the capsule, which was torn from its attachment to the metacarpus, had interposed itself like an apron between the dorsum of the metacarpus and the border of the articular plane of the phalanx, doubtless in consequence of a strong hyperextension. The boy had received a kick against the top of the index from a foot of one of his comrades. The incision of the torn part of the capsule did not allow of the re-

position of the bones. As previously, in a similar dislocation on the thumb, he was obliged to incise and draw outward the light lateral parts of the capsule, when reduction of the dislocation was effected without difficulty. A fair result was obtained. Experience had proved that the same operation to fulfil the same indication could be performed upon the largest joints if strict antiseptic treatment was used.

GUNSHOT WOUND OF THE INDEX FINGER—EXCISION OF PHALANXES.

Dr. Lange also presented a small and somewhat interesting specimen taken from a patient, who, in the end of last year, shot himself with a revolver in the region of the head of the first phalanx of the left index. He was treated in one of the New York dispensaries, and the wound healed, as he says, almost without discharge, in a fortnight. Thus the projectile was healed aseptically. The joint remained stiff, grew more painful, the bones became thickened, and the patient was obliged to give up his professional occupation as an engraver. Some months after the injury, and about two and a half months ago, when the patient applied to the German Dispensary, Dr. Lange performed excision of the joint, and in spite of the comparatively extensive and intense injury, the latter originally had not caused any suppuration. In the almost obliterated articular cavity there was only a minimum quantity of a lead-colored fluid, of about the consistency of synovia. That color pervaded at the same time the diploë of the bones, and he removed the whole of the second and a part of the first phalanx. Perhaps in consequence of too much precaution the operation grew somewhat extensive. The wound healed quickly, and after the second week the patient, by means of an articulated splint, had practised active and passive movements. The finger was considerably shortened, but it was useful and of much value to him in his professional occupation. The last phalanx had a small amount of active movability. The new formation of bone was a defective one, and he had the impression that there was somewhat like a small meniscus between the first and last phalanx. The subperiosteal excision, because of the lightness of the periosteum, was not made without trouble, all the more as he had, instead of an elevator, only the blade of a pair of scissors at his disposal. Perhaps, especially in this location, the removal of the periosteum, including the thin layer of the bony surface, after the suggestion of Prof. Voigt, would be suitable, in order to surely include the layer of bone-forming cellulæ, the so-called osteoblasts.

EXCISION OF THE LOWER END OF THE HUMERUS.

Dr. Lange also exhibited a patient on whom, just five months ago, he had performed excision of the lower end of the humerus for the following injury:

The boy, while standing on an elevator, had put his elbow upon the baluster. In mounting to a higher floor the elbow was squeezed between the baluster and a prominent beam. We saw the patient in consultation with Dr. Buedder about three hours later, and found the following injury: The dorsal side of the joint occupied by a large lacerated and contused wound. Skin and muscles ecchymosed to a large extent, the joint widely opened, the epiphysis humeri entirely separated from the diaphysis and was torn out from the joint, so that its articular surface looked forward. The only connection was with the internal epicondyle. The tendon of the triceps was saved, the articular parts of the forearm, though contused, were not fractured. In spite of the skin being lacerated in

the whole circumference of the joint, except a narrow bridge, no large vessels or nerves seemed to have been injured; and this induced him, confiding in antiseptics, to propose a conservative treatment, to which his colleague agreed. He removed the epiphysis and the lower prominent part of the diaphysis, which was confused, the canaliculi Haversiani being filled with extravasations. He drained the periosteal cylinder at the lowest point, made several counter-incisions at the boundaries of the loosened skin, and treated the case antiseptically as strictly as possible. Immobilization was effected by a dorsal plaster-of-Paris splint with shoulder-cap, at which a slight extension was exercised in order to prevent its slipping above and causing strangulation in the axilla by pressure of the bandages.

The discharge was very abundant; a large portion of skin, connective tissue, and of muscle sloughed, and the first ten days he was obliged to dress the limb every day. A part of the skin mummified completely upon the wound, and was lifted up after a fortnight by strong and healthy granulations. In the fourth week he made transplantations upon the extensive but now superficial wound, in order to hasten healing and thus allow orthopedic after-treatment as soon as possible. In the sixth week an immovable silicate dressing was applied, and passive movements were made methodically. Those movements were continued after the third week, at every dressing. In the third month cicatrization was perfect and some activity existed, and the result showed that the boy had regained nearly the normal use of his arm. The excision was at least 90 degrees. The articular part of the humerus had developed almost in its normal shape, and there was no preternatural mobility of the joint, of which one could be convinced by the fact that the patient was able to keep his arm elevated, at the same time flexed in the elbow-joint, while pronating the hand.

While patients with new elbow-joints could often expend some strength, keeping the elbow close to the trunk, turning the volar surface of the joint in front, and supinating the hand, they might not be able in the opposite positions even to stand the weight of the forearm; and if so, often a slight tap with the finger was sufficient to make the arm fall down with a feeling of complete weakness, probably because in that position the bones of the forearm lost their lever power which normally was secured by the ginglymoid shape of the joint, the normal bony obstructions, and the tension of the ligaments. He omitted those cases of undue mobility of the joint in which a good fulcrum did not exist in almost any position of the arm. Those cases almost never occurred if the excision was made strictly subperiosteal, but he called attention to those cases of slightly increased mobility of the joint, which give a certain amount of use and power in the new joint, and, according to his experience, occurred rather frequently in excisions for scrofulous affections of bones and joints in *adults*. In those cases at the same time there hardly ever existed the possibility of pro- and supination in the regular form. Still those patients made pro- and supination, but by displacing both bones, radius and ulna, from the articular part of the humerus. In the case presented there existed some motion of the head of the radius in the ulno-radial joint, which probably would be more extensive if the head was not fixed by the tightly adherent cicatrix.

The experience gave the practical indication to keep the new bones in a certain amount of contact from a certain stage of their development, in order to

secure as large a joint surface as possible, as short ligaments as possible, and that in as early a stage as possible, especially in those cases in which an extensive formation of new bone was not expected.

The apparatus worn was regarded as of some usefulness, because it perfectly fulfilled one indication of great importance in the after-treatment of elbow resections, by taking off from the joint the weight of the forearm, and by keeping the forearm, as a rule, in a bent position. He considered that point as an important one, because only in that position the articular surface of the ulna faced the cross cut of the humerus. From that position he had made a kind of passive extension by causing the patient to lift such heavy weights that the power of the rubber strips, and of the muscular resistance was overcome to a slight degree. The flexion to an acute angle was left to be brought about by muscular activity. An articulated silicate dress, ending at the upper arm, has newly been recommended by Dr. Genzmer, in Halle. Those lower rubber strips he tried first, when assistant of Prof. Esmarch, by his recommendation, in combination with the well-known apparatus of Bidder. They were, however, not so strong that the arm was kept in a right angular position, and they had only to support the muscular power of that patient, who, in consequence of constriction for bloodless operation, had got a perfect and very obstinate paralysis of the plexus brachialis. The only case of such an accident he saw in Kiel.

Furthermore, he emphasized that the shell for the upper arm ought not to be applied tightly. The upper strips prevent it very well from slipping down, and mediate very sure the transposition of the weight of the forearm to the shoulder. If we would dispense with the shoulder part and transfer the weight to the upper arm only, the shell would have to be applied tightly, and this easily gives rise to troubles of the circulation, especially in the beginning, at which time the circulation was still a weak one, or even wounds existed.

With reference to the elbow-joint,

DR. BRIDGON doubted the propriety of subperiosteal excision, because by so operating it was much more difficult to obtain a mobile articulation than by the old-fashioned method of resection. There was an exuberance of bony growth that interfered with subsequent motion. With regard to the flail-like joint, it was probably much more useful than patients usually supposed.

He then referred to a case in which the forearm could be swung about and made to assume almost any position. A stiff angular splint was applied, and, by the aid of that, the patient was able to perform considerable labor. A few months afterwards the patient discovered that she could perform her work without the splint, and from that time she continued to use her arm without any artificial support. He thought the usefulness of the arm was greater than it would have been had a less amount of bone been removed, and more limited motion obtained. He believed that surgeons many times failed by reason of removing too little bone. The result in Dr. Lange's case was remarkable in view of the extent of the injury.

DR. LANGE remarked that after subperiosteal excision there was a greater indication for early passive motion than after the other operations.

MICROSCOPICAL STUDIES ON ABSCESS OF LIVER.

DR. C. HETZMANN exhibited microscopic specimens illustrative of suppuration of the liver, which subject

had been studied in his laboratory by Dr. J. C. Davis. Dr. Davis had found clinically that, with the exception of traumatic suppuration and that caused by parasites, in all probability abscess of liver was always due to embolism, mainly of the portal veins. The inflammation started invariably in the interstitial connective tissue, and consecutively a part of, or a whole lobule, or even a number of neighboring lobules, might be engaged in the formation of an abscess. In the interstitial connective tissue, the living matter, both in the protoplasmic bodies and in the basis substance, was considerably augmented, and appeared in the shape of coarse, shining, homogeneous granules, which themselves were transformed into inflammatory or medullary elements. The elements were at first uninterruptedly connected with each other by means of delicate threads of living matter, and only after rupture of these threads had taken place the medullary elements became isolated, and then represented pus-corpuses. The liver epithelia first exhibited a coarse granulation and augmented nuclei from the increase of living matter. A number of them might be fused together and divided again into medullary elements, which, if isolated, also shared in the production of pus-corpuses. No emigration of colorless blood-corpuses could be made out. Around an abscess of longer standing, a connective tissue capsule was formed by the medullary elements, which in that instance remained connected, became spindle-shaped, and were partly transformed into a striated or homogeneous basis substance.

FATTY DEGENERATION OF THE PLACENTA.

DR. PUTNAM-JACOBI presented a placenta for the purpose of obtaining further knowledge regarding the now mooted question of fatty degeneration of that organ.

A woman who had been married five years, and, to her knowledge, had never been pregnant, ceased to menstruate six months ago. At the first two menstrual epochs succeeding the cessation of menstruation she suffered from violent attacks of sick-headache. Except for that, her general health was good, and she gave none of the usual signs of pregnancy. In the fourth month after the cessation of menstruation she sustained a fall. It was not severe, but was followed by a sensation "as if something had been torn away from the inside." She, however, experienced no special pain, and had no special symptoms otherwise. She had a moderate enlargement of the abdomen, which she had noticed for only about three months after the cessation of menstruation. On examination, a tumor was found in the abdomen, at least two fingers' breadth below the umbilicus, and corresponding in size to a uterine tumor at the fourth month of utero-gestation. Placental souffle could be distinguished, but the fetal heart was not heard, nor had she felt anything like foetal movement. Dating from the cessation of menstruation, the presumption was that the foetus was destroyed about the fourth month of intra-uterine life, and the size of the tumor corresponded with that view. That diagnosis was confirmed a few weeks later, when miscarriage occurred, which resulted in the delivery of a macerated foetus of about four months. The point of special interest in the case was the condition of the placenta. It was delivered almost immediately with the foetus. It was small, the blood-vessels were shrivelled, there was no large apoplectic clot, but through it were disseminated very small points of apoplexy. About three-fourths of the placenta was converted into a yellow and apparently fatty mass.

DR. HEITZMANN remarked that the specimen, like others which he had examined, presented the gross appearances of fatty degeneration; but the microscope had revealed the fact that it was an amyloid change.

He had the day before examined the *seventh* specimen of so-called fatty degeneration of the placenta removed by miscarriage at the seventh month, and it was found to be the seat chiefly of waxy degeneration, with only a slight amount of fatty change.

FALLOPIAN PREGNANCY WITH CORPUS LUTEUM IN THE OVARY UPON THE OPPOSITE SIDE.

DR. E. G. JANEWAY presented a specimen that illustrated extra-uterine foetation occurring with the foetus in the Fallopian tube opposite to the ovary in which corpus luteum existed. The uterus, with its appendages, was taken from the body of a woman thirty-two years of age, who had been sick about fifteen hours, the chief symptom being pain in the abdomen. She died in a state of collapse.

At autopsy about two quarts of blood were found in the abdominal cavity, partially coagulated, the coagulation being most marked in the portion contained in the pelvis. In the *left* Fallopian tube, at its anterior border, was seen a small linear rupture, not more than one-eighth of an inch in length, from which the blood escaped.

The embryo was not more than one-eighth of an inch in length, and was simply a small, whitish mass upon the allantoid vesicle. The entire sac was about an inch in length, and laid in a distended Fallopian tube, which was a trifle larger, and contained some blood-clots in its interior.

The explanation offered in many of these cases had been that the ovum escaped, and, wandering about in the abdominal cavity, finally entered the Fallopian tube upon the opposite side. That explanation was not admissible in the present case, because, as a result of former pelvic peritonitis, each tube was bound to its corresponding ovary, leaving no opening through which an ovum could enter. Another explanation which some had accepted, was that the ovum, finding its way into the cavity of the uterus, passed across and entered the opposite Fallopian tube. That explanation, however, Dr. Janeway believed should be taken *cum grano salis*. In the present case he thought we were restricted to the explanation that an ovum escaped from each ovary, and that a corpus luteum developed only in the ovary opposite to the one which furnished the impregnated ovum, as in that ovary there was found a sac, about one-half inch in diameter, which was filled with a pulpy blood-clot, evidently of about the same age as the corpus luteum found in the opposite ovary. That blood, when examined under the microscope, showed no hematoidine, hence it was probably not more than seventeen or eighteen days old.

In the opposite ovary there was found a beautifully developed corpus luteum, with bright yellow convoluted wall and fresh red blood-clot in the centre, and corresponded in size to the corpus luteum about three weeks after menstruation.

COMPOUND DISLOCATION AND FRACTURE OF THE ANKLE-JOINT—RECOVERY WITH GOOD MOTION.

DR. J. W. HOWE presented a patient who had sustained a compound dislocation and fracture of the ankle-joint. On the 13th of February, 1879, a large mass of timber fell upon the man, striking him above the knees, and producing a simple fracture of the tibia and fibula of the left leg, and a compound fracture and dislocation at the right ankle-joint. The

joint was opened by the injury; the lower portion of the tibia was broken into two pieces, and the upper fragment protruded from the wound. The man was admitted to the St. Francis Hospital, the limb was treated antiseptically, and the only rise in temperature occurred the next day after admission. He suffered no pain, was able to leave his bed at the end of eight weeks from the time the injury was received, and walked about the ward. The case terminated without synovitis or ankylosis, and the joint movements were free. In the early part of the treatment the limb was kept in a simple fracture-box.

DR. BRIDDON remarked that before the days of antiseptic treatment according to Lister, it was regarded as good treatment in such cases to excise the ends of the bones. He had not seen a patient who exhibited so good a recovery in so short a period of time as in the case presented. Probably the Lister plan should be credited for much of the result, but at the same time the favoring influence of the man's vigorous constitution must be taken into consideration. If, for any reason, the Lister plan could not be made available, he should, in these cases, excise the ends of the bones.

The Society then went into Executive Session.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, June 23, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

A REMOVABLE PAPER BRACE FOR THE TREATMENT OF POTT'S DISEASE AND LATERAL CURVATURE.

DR. A. M. VANCE read a paper on the above subject, which has been published in the RECORD. (See vol. xv., No. 25.)

The paper being before the Society for discussion, DR. F. H. HAMILTON remarked that he had had the pleasure of examining the apparatus, and his opinion was that it was an excellent apparel, that Dr. Vance was working in the right direction, and that it was doing away with some of the disadvantages of the excellent apparel plaster-of-Paris. Plaster-of-Paris had in its favor exceeding simplicity and facility with which it could be applied. Exceptionally, almost any man could learn to apply it, but it was liable to break down a little more so than was desirable, and covered the parts so thoroughly that we could not tell what was going on beneath it.

Another objection to the plaster-of-Paris jacket was that it was to be constantly worn. Perhaps Dr. Sayre would regard that as an advantage, and he did not wish to speak contradictory to his experience; but it was his (Dr. H.) opinion that it was better to occasionally remove the apparel, in order to avoid complete atrophy of the muscles. That had really been the great reason why surgeons had looked in another direction for immovable supports which were to be applied to the spinal column and to other parts of the body, in order that the muscles should retain their power.

But such appliances also possessed their disadvantages. His impression was that, beginning with the plaster-of-Paris, we were working in the right direction, because it gave us an apparel which enclosed the entire body, and consequently had many points of support. An apparel that had only a few

points of support, sometimes to ulcers, and he thought that ordinarily they did not give so much support as those which encircled the body completely. That was why he commonly used a movable corset, an apparel designed by the late Dr. Jacob A. Wood.

Dr. Hamilton thought it was in that direction that we were to look for proper support for the spinal column. If an apparatus could be perfected which was simple, and could be adjusted by everybody, we would have attained a very great desideratum. As it was, physicians were compelled to send their patients to specialists. He commended Dr. Vance's apparel as a work in the right direction. It was somewhat more complex than the plaster-of-Paris, but much more easily made than those forms of apparel which were chiefly composed of metals, and only made by mechanicians and expert specialists.

DR. LEWIS A. SAYRE remarked that he had applied the plaster-of-Paris jacket hundreds, if not thousands, of times, and he had yet to see an excoriation produced by it, or a breaking down of the apparatus, as referred to by Dr. Vance. He was always careful to use good plaster and a certain kind of shirt, a knit garment, one which could be applied with skin-fitting accuracy. He was so much pleased to see this step in the right direction, and recognized in it so much improvement upon the iron brace, the "crib," as he had called it, employed in the institution with which Dr. Vance was connected, that he felt almost like giving it his entire commendation. But, in justice to himself and to the plan which he had suggested, it seemed necessary to say a few words. Dr. Hamilton had very justly remarked that the great desideratum in the treatment of spinal disease was to get something which properly fulfilled the indications, and at the same time was so simple that medical men in all parts of the world could use it without being compelled to consult mechanicians or specialists. Dr. Sayre believed that the plan of treatment which he urged was such that, if any medical man would follow out his instructions minutely to the letter he could not fail of obtaining success. For it had given the most satisfactory results, not only in his own, but in the hands of many others, and therefore, inasmuch as it had acted so favorably, he did not see any necessity for complicating it by Dr. Vance's apparatus. It was perhaps true that Dr. Vance's apparatus was lighter than the plaster-of-Paris jacket, but in all other respects it had no special advantages over it. In order to make the paper brace, it was first necessary to learn to apply the plaster-of-Paris jacket properly, to secure an accurate fit before commencing to build the brace, and when that was done, what more could be wished for? For, when the first good-fitting jacket was obtained, it was better than any other that could be produced.

Dr. Sayre then described what he meant by a properly fitting jacket, and it was one that was *smoothly adjusted to every inequality on the surface of the body*. In order to obtain such a jacket it was necessary to merely unroll the bandage with one hand, while with the other it was moulded over each inequality, over this elevation and into that depression, and when applied in that manner it could not irritate the skin. It was the pressure on the *summits* of the little elevations all over the body that very commonly gave rise to excoriations, but such pressure was the result of improper application of the bandage. For example, if a roller was drawn over the knuckles, it would only touch their summits, and therefore make undue pressure upon four points; whereas, if the roller was simply *laid* over them, and then *moulded* into the de-

pressions and over the elevations, the pressure would be evenly distributed, the support would be greater, and the tendency to produce excoriations avoided. When excoriations occurred, they were simply the result of improper application of the jacket. Dr. Vance had stated that he scraped off the inequalities on the inside of the model, preparatory to making the paper brace, and he (Dr. S.) regarded that as the worst thing that could be done, for the very inequalities were among the essentials to a properly fitting and supporting jacket. Dr. Sayre, therefore, believed that it was wiser to allow the first accurately fitting jacket to remain than to take the additional trouble of removing it for the sake of the risk of obtaining one which possibly might not fit. Besides there was a loss of time and money in making the exchange.

Again, Dr. Vance had spoken of the advantage arising from the fact that his apparatus could be removed and reapplied at any time without much trouble. That was true, but the very fact that apparatus in general, designed for treatment of spinal disease, was *movable*, was one of the strongest objections to it. The very fact that the plaster-jacket encircled the trunk entirely, and, when properly applied, could be worn with comfort for months, thereby giving absolute quiescence to the diseased parts and an opportunity to get well, was one of the greatest advantages the apparatus possessed.

Dr. Sayre then read from Dr. Golding Bird's writings, in which he stated that from personal experience in forty cases he had not seen any ill effects produced by the plaster-jacket; that sore backs and chafes from the jacket were due to fault in putting it on; that out of seventy jackets he had seldom seen the skin irritated; that the jacket should not be removed; that it was the integrity of the plaster which constituted its perfection; and that as soon as cut up it became but little better than old apparatus.

From the *Berliner klinische Wochenschrift* for May 12th and 19th, 1879, Dr. Sayre also read the statements of Walzburg to the effect that the condition of the skin testified that it was not materially injured by the plaster-jacket, and that a movable jacket in the treatment of kyphosis should not be recommended.

DR. JOHN A. WYETH thought Dr. Vance's apparatus was a step in the right direction, but he was not disposed to accept any one device as the *no plus ultra* in the treatment of Pott's disease. He thought that all cases of the disease occurring above the fourth dorsal vertebra required for successful treatment some form of head-suspension. Cases in which the disease occurred between the fourth and the eleventh dorsal, could be best treated by some apparatus that fixed the thorax. He thought Dr. Vance's brace would succeed in that class of cases, and it had the advantage of being lighter than the solid plaster-of-Paris jacket, which would do the same thing, but had the disadvantages he had discussed upon another occasion. [See RECORD, vol. xv., No. 6.]

Dr. Wyeth objected to the term absolute quiescence, for he did not believe that any apparatus could be applied to the human trunk and be worn and give absolute quiescence. If, therefore, there was not absolute quiescence, there was danger from friction incident to the movements of respiration. It was there that the great danger attending the use of Dr. Sayre's jacket rested. He did not wish to detract from the value of the apparatus in the least, for it had already done and would do, great good, but it was not every one who knew how to use it properly.

The cases in which the disease was from the eleventh dorsal vertebra below, he believed could be best treated by means of his own apparatus.

DR. A. C. POST remarked that a case in which the plaster-of-Paris jacket occasioned excoriations occurred under his own observation. The child had considerable deformity, and the mother stated that the jacket had been applied at Bellevue Hospital, but that the child could not wear it because it made the back sore. Dr. Post induced her to take the child to Dr. Sayre's office, where a jacket was applied which not only occasioned no distress, but was worn with great comfort. There was undoubtedly a lack of skill which gave rise to these inconveniences.

The mixture of glue and oxide of zinc, suggested by Dr. Vance, was the same as recommended by Dr. Hayes Agnew, of Philadelphia, at the meeting of the International Medical Congress in 1876.

DR. V. P. GIBNEY remarked that, so far as his experience went, Dr. Vance's brace was an improvement on the plaster-of-Paris jacket, in that it could be easily removed and reapplied. He thought Dr. Sayre did not mean to say exactly that he wished to have the plaster-of-Paris get into every inequality on the surface of the trunk, for if so the ribs could not act in the physiological processes of respiration. During the last two or three years he had taken pains to inquire who put the plaster-jacket on when a patient came to the Hospital for Ruptured and Crippled, and complaint was made that it could not be worn. So far as his experience went he had found a number of cases in which excoriations had been made when the jacket had been applied by men whom Dr. Sayre would regard as experts.

As to the excoriations produced by the steel brace referred to, he did not wish to discuss that question that evening. Testifying cases could be found for every kind of apparatus, but for it he could say that it was an instrument well adapted to meet the wants of the general practitioner in every part of the country. Dr. Vance's apparatus also met the main indication in the treatment of all bony diseases of the spine, namely, fixation, and there was one objection to the plaster-of-Paris which was obviated by its use. He knew of one case in which the plaster-of-Paris jacket had been worn five years, and if it was now removed the child could not walk at all. For such a case an apparatus that could be easily removed and reapplied was preferable to an immovable apparatus.

DR. SAYRE remarked with regard to the plaster-of-Paris filling the intercostal spaces and thus preventing motion of the ribs, consequently interference with respiration, that if any one would study Hilton on Rest, they would there find a case reported in which diaphragmatic respiration was carried on for years without special inconvenience to the person; there was complete consolidation of the ribs with the spinal column, allowing of no motion whatever.

If it was desirable to have an apparatus that could be removed and reapplied, the plaster-of-Paris jacket could be cut down, its edges bound, eyelets adjusted, and then it was as convenient as the removable paper brace.

DR. HAMILTON remarked that he did not think it possible that any form of apparel which grasped the ribs, movable as they were, even if not used further than for purposes of suspension, could be constructed which, having its prehension upon the circumference of the chest, would uplift the spinal column. He suspected the error in the principle of the apparel was, that it pushed, although it pushed equally upon all sides of the body, but it did not uplift. So far he did

not agree with Dr. Golding Bird in his view of the action of the plaster-of-Paris.

DR. SAYRE remarked that the plaster-jacket neither lifted nor pulled. The patient was simply suspended until he felt comfortable, and then the apparatus was applied to fix him in his improved position—it was simply fixing the position given to the patient before the jacket was put on, the apparatus neither shrinking nor stretching.

DR. WYETH asked Dr. Sayre if he believed the spinal column could be extended.

DR. SAYRE replied that he not only believed, but that he knew it.

DR. WYETH asked why suspend the patient before applying the plaster-of-Paris jacket?

DR. SAYRE said because it relieved the diseased parts from pressure, and made the patient more comfortable, and when in that relieving position he applied the jacket, which prolonged his comfort.

DR. WYETH remarked that since one-fifth of the entire length of the vertebral column was composed of intervertebral (elastic) fibro-cartilage; since the articular processes were surrounded by capsular ligaments (which anatomically implied free motion) lined by synovial membrane; since the length of the body was increased in the recumbent posture (the superincumbent weight removed, he must maintain the spinal column was susceptible of being extended or shortened by applying the proper force.

DR. VANCE, in closing the discussion, remarked that he had not seen a close fitting of the intercostal spaces by the plaster-of-Paris jacket. Besides, suspension raised the hump, and when the suspension was removed the lower part of the hump at once impinged against the plaster, and it was just there that excoriation was most liable to occur. He then referred to what he conceived to be the difficulties attending the application of the plaster-of-Paris jacket with the aid of suspension.

The Society then adjourned.

Correspondence.

PARONYCHIA—RESTORATION OF TERMINAL PHALANX.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the RECORD, No. 439, April 5, 1879, p. 334, in your report of the Surgical Section of the New York Academy of Medicine, under "Paronychia—Restoration of Terminal Phalanx," the question was raised, Would a new phalanx be formed? (*vide* report). Soon after the publication of the report I received from Prof. Frank H. Hamilton, one of the distinguished surgeons of our profession, this communication, which I appreciate most highly: "Dear doctor, if you will call upon me I will refer you to a number of published cases of restoration of the last phalanx, after opening a felon." I called the following week, when Prof. Hamilton gave me the following references:

First. In the *Buffalo Medical Journal*, Vol. V., 1850, p. 710, a case reported by him, in which there was reconstruction of the entire terminal phalanx of the thumb. In this report he gives to the late Prof. Dudley, of Lexington, Ky., the credit of priority.

Second. In the same journal, Vol. XI., 1855, p. 257, an article entitled, "An Analysis of Cases of Paronychia, by Austin Flint, Jr., Buffalo, N. Y." These are

taken from the private records of Prof. Hamilton, eighty-one cases of paronychia benigna, and seven of paronychia maligna. This analysis does great credit to the undergraduate Flint (his graduation is recorded 1857), and is well worthy of careful perusal at the present day. A partial epitome may not be out of place. He discusses sex, occupation, causes, hand and finger affected, age, health, suppuration, time of opening. His concluding remarks are as follows: "These facts show the importance of opening the finger at least as early as the tenth day, and it would appear proper to do so as soon as the disease has become established, even before pus has been formed."

Third. In the *New York Journal of Medicine*, Vol. IV., 1850, New Series, p. 139 (edited by Dr. S. S. Purple), at the close of the first article in the surgical department is a selection from the *Transylvania Medical Journal* for December, 1849, on the treatment of gunshot wounds, by Prof. B. W. Dudley, where he states that after removal of the dead phalanx, the result of bone-felon, in very many instances, he assisted nature in the complete restoration of a new phalanx by the roller: "I have within the last quarter of a century, in very many instances after the extraction of an entire dead bone, caused the construction of a new one in its place, of equal dimensions, by the aid of the roller, which suspended muscular movement, subdued swelling and inflammation, and thereby left nature free to reconstruct the lost bone. The dead phalanx, in cases of bone-felon, is here referred to."

Fourth. The *Peninsular Journal*, Vol. V., p. 372, January, 1858. This journal I have been unable to consult. I regard the act of Prof. Hamilton as one tending to cement the profession, and worthy of commendation and imitation, for by it my knowledge of the results and the treatment of paronychia has been better established.

In a practice of about twenty-five years I have had considerable experience in the treatment of paronychia, but the case to which I have referred is the first in which I have had occasion to remove dead bone.

Although my plan of treatment was original with me, being guided solely by my judgment in obtaining as good result as possible, thereby having "a good little hand" (the name I heard the renowned Dr. Valentine Mott give the thumb), I discover similar treatment was used over a half-century ago by the late Prof. Dudley.

How often in emergencies we think we are geniuses. viz.: we invent an instrument, and with the kind aid of the instrument-maker it is made presentable, but at the same time he may inform us that our invention was presented years ago.

The very estimable analytical paper on paronychia by the undergraduate Flint was a forerunner of his brilliant analytical career as a physiologist. Of Prof. Dudley it may be said, "though dead, he yet lives."

From the references given to me by Prof. Hamilton I have derived benefit, and therefore wish, through the columns of your valuable journal, with its wide circulation, to extend the information to others.

Yours very respectfully,

FRANCIS V. WHITE.

NEW YORK, July 26, 1879.

THE LONDON TEMPERANCE HOSPITAL.—This is an institution which treats its patients without alcohol. Its sixth annual report is just out, and claims that the hospital is very successful in carrying out its peculiar methods. We find no statistics or details given, however.

THE TREATMENT OF YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Notwithstanding the sanitary precautions taken by the various "Boards of Health," yellow fever seems determined to push its way into southern society. The experience of last year is sufficient evidence of the helplessness of physicians (with those means already used) to check its progress. The "cold-water" treatment was the last resort. In some cases it appeared to operate finely; in others disastrous results followed its employment.

In all the articles, statements, etc., I have read in regard to the successful administration of cold in yellow fever, improvement dates from profuse perspiration. Some *claim* that to the direct refrigerant action of cold the benefit is to be traced; but practical experience indicates the first statement to be correct. Assuming this to be the fact, the question arises whether there are no safer means at our command to bring about the same results. Unquestionably there is such a remedy in the proper and energetic application of external heat. By this, no reference is made to the wrapping of a patient in a blanket or two, and the induction of a mild perspiration; but to the vigorous and thorough administration of heat, such as is found in the Turkish bath, etc., where the temperature varies from 120° to 220° Fahr., and *excessive* sweating is produced. Let us briefly analyze the action of cold and heat upon the system. The first effect produced by the former is a shock, which for the time being paralyzes the nerves controlling the cutaneous pores, throws the blood to the visceral, and increases their congestion. In a short time a reaction *generally* sets in, the blood flows to the surface and relieves visceral congestion, the pores of the skin are opened and sweating ensues.

Upon the application of heat the blood leaves the visceral and seeks the surface. The pores are opened, sweating ensues. The same result may be reached in each case, but which is safer? With cold, the patient is liable never to recover from the shock, in which case death occurs. With heat, there is no shock from which to recover.

Pathological investigation in yellow fever last year showed excessive visceral congestion. The liver, spleen, brain, choroid, etc., were in an extremely inflamed condition, and the kidneys so filled with albuminous tube-casts as to almost, if not quite, prevent any secretion of urine whatever. Is it justifiable in this condition to submit a patient to any procedure which further induces, if only for a short time, congestion? If reaction sets in upon the administration of cold all may be well, but if the contrary occurs (and this is often the case), a fatal result may with safety be predicted. The "cold-water" treatment of fever is losing favor. The splendid results anticipated from its adoption have not been fulfilled, and statistics from various hospitals do not in many instances compare favorably with even expectant treatment. I read with pleasure an article in the *RECORD* of May 31, 1879, by Dr. Peters, of Cohoes, N. Y. To this article I would refer those interested in the subject under consideration. The statistics he has compiled derogatory to the "cold-water" treatment are very valuable, and show clearly that this remedy is not realizing the expectations of its advocates.

If the pathological condition of yellow fever is congestion, clearly any remedy capable of relieving this condition would be at least valuable and worthy a fair trial. If space allowed, many proofs of the effi-

cacy of heat in this particular might be adduced. I will, however, cite but one instance, which seems most scientific and satisfactory.

Dr. Leared, of England, relates the following: "Having found that persons affected with fulness and congestion of the head were often much benefited by the Turkish bath, he thought that the readiest mode of ascertaining the effect of the latter upon the cerebral circulation would be by observing its influence upon the blood-vessels of the retina. Mr. Wordsworth therefore examined Dr. Leared's eyes with the ophthalmoscope, just prior to his entering the bath, and again after he had remained in the hottest chamber (196° Fahr.) for a quarter of an hour, and then found a decided and marked paleness of the optic nerve and a diminution in the size of the retinal vessels. The same effect was noticed in four persons employed in the bath (a negro, an East Indian, an Englishman, and a German), under a temperature of 120° Fahr., who were examined at the same time by Mr. Wordsworth." These experiments I have verified in a patient (F. E., male, aged 24 years, Sycamore, Ill.) under my care for congestion of the brain. A Turkish bath not being convenient, an alcohol and water-vapor bath was substituted. The optic nerve and retina being noticed before and after profuse perspiration, apparently the same effects were produced as in Dr. Leared's case. If the fever becomes epidemic this year, I would strongly advocate the adoption of the external application of heat as the main feature in its treatment. The erection of a chief building, where the principles of the Turkish bath, viz., sufficient heat and ventilation, could be administered, or in lieu of this, the application at home of heat in the way of "corn sweats," "alcohol sweats," etc., would answer a good purpose, provided they were given often enough and with sufficient vigor. If Turkish bath buildings should be adopted, it would be advisable to have physicians in charge who understand its principles and practical application.

The past has not been productive of good results in the management of yellow fever. It appears, therefore, that any remedy indicating better issues should receive attention and a fair trial. One fact, however, must be borne in mind in order to obtain good results: the remedy must be administered *very thoroughly*, and not by the occasional induction of a mild perspiration.

FRANK ALLPORT, M.D.

SYCAMORE, ILL.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

REPLY TO DR. J. D. S. SMITH.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The strictures made by Dr. Smith in his letter concerning Electro-therapeutics and the American Neurological Association were not altogether unjust. It cannot be denied that the whole discussion on current direction and polar influence, as reported, tends to convey the impression that there are no well-established differential indications for their use. Since of all remedies electricity is used with the least understanding by the many, I think it peculiarly unfortunate that in this discussion there was such a wide difference of opinion; and as my conviction in relation to this question is very positive, I very gladly take this opportunity to repeat and emphasize it. I then stated that in most cases where a

sedative influence was to be desired, and for the relief of pain associated with true neuralgia, as defined by Anstie, the descending current was far preferable, and that in numerous cases the ascending current was not only valueless, but actually aggravated symptoms which yielded readily to an opposite direction of current. My own experimental attempts, which I published years ago, were sufficiently convincing to me, and afforded a basis on which I have since satisfactorily acted.

In a number of cases which I tested, I was enabled, after obtaining good results from the descending current, to increase the pain temporarily by changing its direction. In the first case my observation was accidental, for, having under my care a severe case of facial neuralgia, which was slowly recovering under descending currents, I changed the position of the poles, hoping in this way to hasten the results. The effects were disastrous, for the pain instantly returned with increased severity. Whether such results, both good and bad are due mainly to polarization or current-direction is open to question. According to the well-known contraction laws of Pflüger, we might well believe that polar influence is the important factor; and yet the French school, and notably Legros and Onimus, deny the efficacy of polar influence in exciting physiological phenomena, ascribing them chiefly to current direction. They ascribe anelectrotonic effects to electrolytic action, and to the induction of currents of polarization. Whatever the truth may be, however, in regard to this, I have no more doubt about the different therapeutic effect of opposite *directions* of current than I have of the difference between the two *forms* of current.

A. D. ROCKWELL, M.D.

NEW YORK.

New Instruments.

NEW OPERATION IN CASES OF PROLAPSUS, RECTI AND EXTERNAL HEMORRHOIDS.

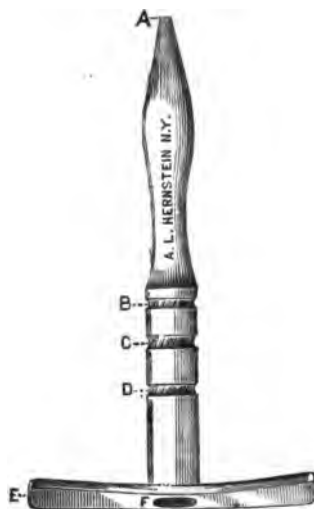
By SIMEON N. LEO, M.D.,

NEW YORK.

THAT there are certain painful and serious affections of the lower portion of the rectum amenable to surgical treatment and interference is pretty well understood, and the attention of late bestowed on the practice of this now almost so-termed specialty has given rise to a series of suggestions and operative procedure, all well in their way, though some of them, in skilful hands, are entitled to a preference, bearing in mind the fact that modifications must be made to meet the requirements of any particular exigency. Without, therefore, entering into a discussion of rival claimants as to whether the clamp and canter, caustic, cutting, or ligature are more desirable, I briefly beg to recall to mind the anatomical structure and relation which the outlet of the lower gut bears to other parts in the male and female organism, especially that portion most frequently invaded by the two varieties of external piles appropriately described—firstly, as hypertrophies or excrescences of the skin; secondly, as sanguineous or venous tumors; and suggest that in view of danger from cutting and other operations, which often give rise to troublesome hemorrhage and tetanus, that the ligature is preferable, as safer, while yielding the best result, and less likely to provoke some of those disagreeable sequences which surgeons

who have given the various methods referred to a trial are more or less familiar with.

Having resolved, then, to remove such growth or extruded part by ligature, it is well to consider some of the more important features associated even with this simple operation, which in some respects I believe can be so modified as to suit both patient and surgeon, affording the former greater ease and comfort in its performance, and the latter the satisfaction of having discharged his task in the most acceptable manner possible, requiring but little time and inducing many considerations, to which the brevity of this article simply allows allusion. I suggest the use of the little instrument two inches and a half in length, one inch



and a half in width, illustrated by the woodcut, bearing in mind the following directions in its application:

Firstly, the person to be operated on should be careful to have the gut well washed out with an enema of warm water, and while evacuating same protrude the parts to be taken off. Then placed upon a bed or lounge, resting on the right side, with the knees flexed up and directed to bear down, it is well then to have the upper buttock raised, if an assistant is present, by him, otherwise supporting it with a doubled pillow; then seize the hemorrhoids with a forceps, serrated hook, or vulsellum, and pulling the mass gently out see if the piles be surrounded with much submucous or muscular tissue; if so, separate each pile with a stout scissors, being careful not to wound any of the vessels, cutting parallel with the bowel for a short distance only; then insert the tube, well oiled or greased, at A, its sharp point, and directing the assistant to make gentle traction and pull forward on the projecting parts. With a catgut ligature proceed to tie firmly the mass in the grooves, B, C, and D, according to their length.

It is well to put a tight, double ligature at the groove, B, so as to strangle the extraneous parts. The operation is then concluded. A thin probe should be inserted at F to free the tube, after which a sedative opiate injection may be used to allay pain; while at the time it is advisable to administer an astringent pill or draught for the purpose of confining the bowels.

The tube being hollow allows the flatus to escape from the canal, permits local medication, sedative and antiseptic; and the gentle pressure exerted on the sphincter muscles being rather soothing and supporting than otherwise.

The instrument should be so entered that the two flanges are placed transversely to the median line. The surrounding parts, as a rule, heal rapidly, and the sloughing, which occurs in a few days, generally releases that which it is desired to remove.

A prolapsus of the rectum may be treated on pretty much the same general principles, and I believe will yield equally satisfactory results.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 8 to August 9, 1879.

WEBSTER, WARREN, Major and Surgeon. Granted leave of absence for three months. S. O. 181, A. G. O., August 5, 1879.

HARVEY, P. F., Capt. and Asst. Surgeon. Relieved from duty at Ft. Buford and assigned to duty at Ft. Randall, D. T., relieving Asst. Surgeon L. Crampton. S. O. 84, Dept. of Dakota, August 2, 1879.

CRAMPTON, L. W., 1st Lieut. and Asst. Surgeon. When relieved from duty at Ft. Randall, to proceed to Ft. Buford, D. T., and report to the Post Commander for duty at that post. S. O. 84, C. S., Dept. of Dakota.

RICHMOND, CHAS., 1st Lieutenant and Asst. Surgeon. Having reported in person at these headquarters, assigned to temporary duty at Ft. Buford, D. T. S. O. 83, Dept. of Dakota, July 30, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 9, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 2, 1879..	0	3	34	3	44	19	1	0
Aug. 9, 1879..	0	7	40	2	25	17	1	0

THE YELLOW FEVER.—From August 6th to August 12th, inclusive, the number of new cases of yellow fever in the city of Memphis was 161, and the number of deaths 32. The whole number of cases for this year to August 13th is 422, and the whole number of deaths 106.

By order of the Secretary of War, 500 army tents have been forwarded for the use of fever refugees in camp.

The disease has extended beyond the immediate neighborhood where the first cases developed in July, and cases have been reported and deaths have occurred in so many different localities in the city, that the Board of Health, on August 9th, made a formal declaration of a general epidemic.

In this port (New York) a few new cases have been received at the hospital on Dix' Island. August 12. All the patients have been discharged.

One fatal case has occurred in the city of Brooklyn. Dr. White, Sanitary Inspector for the city of New Orleans, reports that the city is enjoying the highest possible health.

A very severe epidemic is reported from Tampico, Mexico.

VOLUNTEER SURGEONS FOR YELLOW FEVER SERVICE.—The order which assigned Surgeons Thomas Hiland and Walker K. Schofield to duty as volunteer surgeons for yellow fever service, under the direction of the National Board of Health, has been revoked, neither having had the fever. Medical Inspector Somerset Robinson, of the Navy, and Dr. Daniel M. Burgess, a resident of Havana, have been assigned to duty at Matanzas and Havana respectively, to perform the duties of inspectors.

THE TREATMENT OF CHOLERA-INFANTUM.—Dr. Charles H. Avery, of New York, writes that he has adopted the following treatment in cholera-infantum with very great success: He first directs that a poultice be made as follows, and applied over the stomach: Take of pounded cloves, cinnamon, and ginger, each, one teaspoonful, add a small quantity of flour, and then moisten the whole with brandy. Spread the mixture on and cover with thin flannel, and so fasten it that it will be kept in position. Occasionally moisten the poultice with brandy, which can be done without removing it. One teaspoonful of the following mixture is then ordered every two hours for children over three months old.

B. Acid. carbol. gr. xxiv.
Spts. vini. gtt. xxiv.
Aq. menth pip. 3 iss.
Mucil. acac. 3 vi.
Syr. papaver. 3 vi.
Tr. opii. gtt. x. M.

As a rule the vomiting ceases before the hour arrives for the administration of the third dose; frequently before the second dose is given.

The passages from the bowels are not arrested by the medicine, but within twenty-four or forty-eight hours they begin to change in character, soon diminish in frequency, and afterwards cease altogether. The diet of the child is restricted to barley-water and milk. If it is a nursing child, barley-water is administered before it is allowed to take the breast.

If the vomiting is severe, the child is *not allowed to take anything*, except the medicine, for three hours.

If there is marked evidence of acidity of the digestive tract, teaspoonful doses of the following mixture are given every ten or fifteen minutes for two or three hours:

B. Mistura cretae. 3 ij.
Syr. rhei. 3 i. M.

To this he sometimes adds fifteen grains of hydrargum creta.

As a substitute for the above antacid mixture, he sometimes gives ten grains of subnitrate of bismuth, and five grains of pepsin three times a day.

The leading features of the plan which he recommends are: the spice poultice, the barley-water and milk diet, and the medicines according to the first prescription.

HONOR TO DR. CRAWFORD W. LONG.—Mr. F. B. Carpenter, of New York, has just finished a nearly full-length portrait of Dr. Crawford W. Long, late of Athens, Ga., which is to be placed in the State Capitol at Atlanta, Ga., at the order of the alumni of the Georgia University. It is in honor of the discovery made by Dr. Long, March 30, 1842, that inhalation of sulphuric ether renders a patient insensible to the pain attending a surgical operation. It will be received and presented to the Georgia legislature by United States Senator Gordon.

Original Lectures.

RETENTION OF URINE IN ELDERLY MEN.

CLINICAL LECTURES DELIVERED IN BELLEVUE HOSPITAL,

By J. W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM, MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

(Reported for THE MEDICAL RECORD.)

LECTURE I.

ACUTE RETENTION OF URINE.

GENTLEMEN:—I propose, in a few short lessons, to speak to you on the subject of retention of urine as it sometimes occurs in elderly men, for I have already, on previous occasions, said much concerning the occurrence of this distressing trouble in the young and middle-aged.

The class of cases to which I now invite your attention may be illustrated by the following, and not infrequent history. I might give twenty or more examples, but for the present a single typical case will suffice.

On an unusually cool evening in August, 1878, a gentleman, 54 years old, in fair health, clad in thin summer garments, sat for several hours upon the piazza of his house near the shore of one of our lakes. Before retiring he experienced a sensation of general coldness, which was not, however, followed by an absolute chill. On the next morning he suffered the greatest distress from inability to pass a single drop of urine, and ever since that moment he has not been able to void his urine without the aid of a catheter, though he had never, before this attack, had the slightest difficulty in relieving his bladder naturally. This patient was then suffering from what has been properly called acute retention of urine, which should not be confounded with the more gradual and insidious accumulation of urine known as chronic retention.

In the clinical study of a case of acute retention of urine the following are the points to be considered: An elderly man, otherwise healthy, having never had any symptoms of trouble with his genito-urinary apparatus, is, after exposure to cold in the way just described, or after a debauch—especially if followed by coitus—unable to relieve his bladder and suffers great pain from distention, though at the outset of the retention he may have been able, by much straining, to expel now and then a few drops. The first question that, I am sure, arises in your minds is, what may be the mechanism of such retention? This stoppage of urine is not the consequence of closure of the canal by a stricture, for there are no strictures of the prostatic portion of the urethra or of the urethro-vesical orifice, and it is easy to exclude impacted calculi, or other foreign bodies, by a simple exploration, and also by further inquiry into the antecedents of the case. The condition in question is similar to that which occurs in young men who, towards the decline of an attack of gonorrhoea, have suffered exposure to cold, and consists in complete occlusion of the urethro-vesical orifice and prostatic sinus, owing to tumefaction of the surrounding tissues. In a man who has even very slight general enlargement, or the beginning of centric hypertrophy of the prostate, with a "third

lobe" so small as to cause no obstruction, an exposure to cold, or over-indulgence in the pleasures of the table, or in venery, will cause sudden engorgement of the pelvic vessels, which will give rise to such increase in bulk of the whole prostate, partly by serous infiltration, as to completely close the urethro-vesical orifice, and of course to retention of urine. And you may ask why should sudden increase of the prostate cause obstruction to the flow of urine, when it is known that many patients who have enormous prostates are able not only to urinate but to empty their bladders? I answer that there is a very great difference between sudden engorgement and chronic enlargement. In the former the resisting fibrous capsule of the prostate will not yield to sudden pressure, and the consequence is that the third lobe, "being unprotected by the capsule and free at its summit, rapidly swells; the sides of the prostatic sinus are likewise tumefied, and the urethro-vesical orifice and prostatic urethra are finally thus blocked up, and this is usually the work of a few hours, as it is for example in oedema of the glottis; whereas in the latter, the slow hypertrophic process permits the capsule gradually, month after month or year after year, to accommodate itself to the steadily increasing gland, leaving room for the escape of urine. I scarcely need tell you that those very patients with great general hypertrophy of the prostate, who ordinarily empty their bladders without artificial means, are extremely liable to acute retention of urine from the same causes as the others, and that often after this accident the obstruction is not removed, and they are never again able to pass urine without the aid of a catheter. The patient who is now before you is a good example of this variety of cases.

The symptoms and progress of acute retention of urine are: for an hour or two, dysuria, the first efforts at urination giving issue to short jets of urine which cause such severe scalding, burning pains in the deep urethra, that the patient instinctively represses the flow; then follows strangury, with the escape, at times, of drops of blood or bloody mucus, alternating with the drops of urine; this may continue also an hour or two; and at last comes ischuria, or inability to discharge a single drop of urine in spite of the violent straining efforts which will often cause the escape of feces, or even prolapse of the rectum. If the case be left to itself, the urine will accumulate until the bladder bursts or becomes atonied and distended to the point of containing six or eight pints or even more, when urine will begin to dribble away involuntarily. During these distressing stages of the complaint there is great general neurosis, much agitation, marked febrile reaction, thirst, facial congestion, accumulation of gas in the intestines, much pain, with an almost insupportable sense of distention in the hypogastric and lumbar regions, dryness of the skin, then profuse perspiration with urinous odor, muttering delirium, oliguria, then anuria or complete suppression of urine, and if the patient does not die in consequence, polyuria is very apt to follow.

During the first twenty-four hours the patient suffers the greatest torture from increasing distention of the bladder, and from constant, irrepressible straining. So far, the accumulation may not have exceeded three pints, but in the meantime the poor sufferer has taken a little of everything that may have been suggested—nauseous decoctions of all sorts, diuretics innumerable—all serving only to increase his troubles. Suppose the case to occur in the country, and the wretched patient to be in the hands of the old women of the neighborhood. After every imagin-

able local application has been suggested, and several of the most filthy tried, they begin with teas: linseed, slippery elm, comfrey, etc., with a liberal allowance of nitre in each cup; but all these potions have failed, when finally, at the expiration of forty-eight hours, in comes an old friend with a bottle of gin which he boldly asserts never fails to cure all his own ailments. He speaks so confidently of the wonderful effects of his panacea in urinary troubles, and of its general harmlessness, that the patient, now in utter despair and ready to grasp at any straw for relief, consents to take a gin julep. It is nearly time, as you know, for the beginning of dribbling from overflow, and for the pain and straining to lessen; in other words, for the bladder to lose its contractile power. Within an hour, while he is waiting for the effect of this never-failing remedy, the urine has begun to flow drop by drop. He could not have selected a more favorable moment for the display of his wisdom, as on the first day he would have been sadly disappointed. Now imagine the triumphant air, attitude, and gesture of the prescriber, when he exclaims, "I told you that the gin would do it, never has it been known to fail!" . . . All of course concur with him in ascribing this marvellous result to the drink of gin, and insist that the patient shall take more, and he does take more. The urine flows continuously, in very small quantity for hours, but by and by some one suggests that the patient is making too much water, and that means must be taken to repress the flow. How to accomplish this none can tell; so they decide to consult a doctor, who is at length sent for to stop this constant and, as it is thought, injurious flow of urine. The doctor comes promptly, learns what has been done, inspects the abdomen, makes percussion, finds the bladder greatly distended, at once introduces a catheter, and to the amazement of the bystanders draws off slowly, in the course of two hours, three or four pints of urine, withdraws the instrument, and makes the startling statement that he has only half emptied the bladder.

You will occasionally be called to precisely such cases, and I hope you will do precisely what the doctor has done. You will forthwith proceed to remove slowly and gradually only a part of the contents of the bladder.

Why forthwith? Because to temporize in such cases is criminal stupidity; it is worthy of the senseless and meddlesome neighbors, who are to be found everywhere, and who are usually the enemies of truth, reason, and common sense. However, they are not the only people who have been known to temporize in cases of retention of urine. In this very city of New York, how often, not many years ago, certain medical men treated cases of acute retention of urine by embrocations, hip-baths, diuretics, and especially free doses of tincture of the chloride of iron, for days, when the catheter would have done the work so promptly and effectually. One of the believers in this expectant treatment, who was asked why he would not use the catheter, said it was because the tincture of iron "always in time makes them urinate." This sort of management, I repeat, which excludes the catheter when its use is so clearly indicated, is worse than stupid, it is criminal.

Why should you withdraw only a part of the urine from an over-distended bladder? Why slowly and gradually? Because experience has taught careful observers that when the contents of a largely distended cavity in the body are suddenly evacuated, the consequences are usually hurtful. For instance, in tapping for ordinary abdominal dropsy, neglect

during the operation to use compression with a proper bandage, or the too precipitate withdrawal of the serum, has been followed by the most untoward results, such as syncope, hemorrhage in the peritoneal cavity, and even fatal peritonitis. Profuse hemorrhage also sometimes follows the sudden emptying of large abscesses, of thyroid and other cysts, and of those long-neglected enormous hydroceles of the tunica vaginalis testis. The same almost always occurs when a greatly distended bladder (in an elderly man) is completely relieved of its contents with too much precipitation. Let me now give you what I conceive to be the correct explanation of such a hemorrhage in the bladder. So long as the bladder remains distended there is no bleeding; but as soon as the urine is drawn hemorrhage begins. The vesical parietes, from having been in a state of extreme tension, in an instant become flaccid, the capillaries of the mucous membrane, from having been greatly stretched and almost emptied, are suddenly gorged with blood, and being deprived of the hydraulic support of the urine which but a moment before braced them up, their delicate walls, unable to resist the increased internal pressure exerted by the circulating blood, give way, and the blood oozes from thousands of little rents on the surface of the vesical mucous membrane. These vesical hemorrhages are often abundant, and have been known to last two and three weeks, but they very seldom prove fatal directly, that is, from the amount of blood lost; the danger lies mainly in the consecutive general cystitis which cannot always be controlled. A septuagenarian suffering from prostatic hypertrophy died from this cause several years ago. The patient had acute retention of urine, with great distention of the bladder, which was suddenly emptied with the aid of a catheter introduced by his surgeon. Within a few hours the bladder was again distended, this time not with clear urine but mainly with blood. Each subsequent catheterism brought a great amount of blood, and the old gentleman grew gradually worse, with symptoms of acute general cystitis, and died within ten days.

About four years ago I saw, in consultation, a similar case, which however terminated favorably. The patient was 68 years of age, and had some prostatic hypertrophy, but had not been obliged to use the catheter. He was, on the morning after an exposure to cold, seized with acute retention of urine, which he had had on several former occasions, and after some delay summoned his physician, who at once introduced a catheter and withdrew three pints of clear urine. A second catheterism on the same day gave issue to bloody urine, and from that time all the urine drawn off was highly charged with blood, clots of which at times became impacted in the catheter. I saw the patient nine days after the first catheterism, and drew off a pint and a half of fetid, thick, alkaline, tarry fluid, consisting of about an equal amount of blood and urine. The catheter was left in for twenty-four hours and the bladder thoroughly drained, while an occasional irrigation with an astringent solution was used. Afterwards the urine was drawn off every three hours and the bladder duly irrigated. No more hemorrhage occurred after complete drainage was effected, and the cystitis was easily managed.

A safe rule, therefore, for your guidance in the management of cases of acute retention of urine of forty-eight hours' duration, is never to draw off more than one-third of the contents of the bladder, and to do this very slowly by half closing the distal end of

the catheter, so that the urine will flow in a very small stream. Having collected half a pint, close the catheter for a quarter of an hour, then let another half-pint flow, and so on, until the required quantity has been obtained. In two hours repeat the catheterism if the first has been easy—otherwise the catheter should be closed, and left in for twenty-four hours—and remove again the same quantity very gradually, and at the expiration of another period of two hours you may completely empty the bladder, always slowly; and in this way you will have taken the necessary precautions to avoid both cystorrhagia and polyuria. Every three hours after the last catheterism the urine should be drawn off until the patient can pass it spontaneously; if he cannot do so, of course the catheter will have to be resorted to at such intervals as may be found necessary. You will also have to treat the existing vesical inflammation and atony. For general medication I would recommend the tincture of chloride of iron in five-minim doses three times daily, and also diluent drinks, such as thirty grains of citrate of soda or potash in half a glass of water three times daily, and in a few days, for a change, dog-grass tea, etc. Topically, lumps of ice the size of the last joint of the thumb should be introduced into the rectum in rapid succession as fast as they melt, for an hour night and morning. A bag of ice may be afterwards applied alternately to the perineum and hypogastrium for an hour or more. Each time the bladder is emptied by the catheter, a couple of ounces of cold borax solution, from five to ten grains to the ounce, should be thrown in and allowed to run out slowly, then two more, and two more ounces which should be left in and the catheter withdrawn; this can be accomplished in five minutes. No preparation gives me more satisfaction than the borax solution for cleansing bladders which contain offensive purulent urine. It is as well to have in readiness a strong solution of borax in glycerine; one ounce of the biborate of soda will be readily dissolved by six ounces of glycerine, each drachm of such a solution being equal to ten grains of biborate. In a week or thereabouts, if the case should progress well, the irrigations may be diminished in number until only one is used each day. In some cases a mild faradic current is serviceable.

Besides hemorrhage, polyuria, as I have already said, is very apt to follow the sudden evacuation of an overdistended bladder, and you will generally prevent its occurrence by observing the caution that has just been given. I know of a case of polyuria which followed the withdrawal of three pints of urine in the course of one hour, one pint at a time, the third pint completely emptying the bladder. The catheter was left in, and every hour for twenty-seven consecutive hours one pint of urine was drawn. After this the amount of urine gradually diminished, until only six pints were removed each twenty-four hours. At the end of three months it was reduced to four pints daily.

The case just cited is exceptional, for ordinarily it is safe to empty the bladder—slowly of course—at one catheterism, when the patient is seen during the first twenty-four hours of an attack of acute retention.

RETENTION OF URINE IN CASES OF CONTRACTED BLADDER.

Let me now, in a few words, direct your attention to those cases in which there is chronic cystitis with diminished capacity of the bladder, and in which the accumulation of even four ounces constitutes retention

of urine with its most distressing symptoms. A patient suffering from chronic cystitis, who for a long time has been obliged to urinate every hour, half-hour, or even more frequently, is suddenly unable to relieve himself. For the next two or three hours he is in the most intense pain, and in the condition of an ordinary case of acute retention of twenty-four hours' standing.

A catheter is introduced, and any young surgeon unacquainted with like cases will be surprised that only four or five ounces of urine have come away, but the patient experiences quite as much relief as another from whom two or three pints of urine may have been drawn. The early recognition of the nature of such cases will be to you of the utmost importance, and their management will require your best skill and judgment. The catheter should be used promptly and with the same care as in the other cases, but more frequently, especially when cystorrhagia or polyuria supervenes, as the pain and vesical spasms may be such as to forbid the retention of the instrument beyond a few minutes.

Original Communications.

THE HISTORY OF MASSAGE.*

By DOUGLAS GRAHAM, M.D.,

BOSTON, MASS.

PART II.

THE third historical division of massage, or what is found recorded about it in more recent times, has been styled its period of improvement. To Peter Henrik Ling, of Sweden, is given the credit of having instituted, in 1818, what is so well known as the "Swedish Movement Cure." Some even regard him as the inventor of this system of treating certain diseases, while others consider that he only made rational that which had been in practice for many centuries among the Chinese and other eastern nations. The latter is the more correct view, and the one which Ling himself doubtless held; for Dr. Roth, a disciple of his, states that Ling thought not, like his predecessors, of merely imitating the gymnastic treatment of the ancients, but he aimed at its reformation and improvement. From the following remarks of M. Georgii, one of Ling's pupils, it has been thought by M. Estradère (Du Massage, 1863) that Ling claimed to have invented the movement and manipulation treatment of disease. "Let us speak of the series of movements invented and determined by Ling. Here the influence comes solely from without, and the patient submits to the mechanical impression. Ling means by passive movements all communicated movements, such as pressures, frictions, percussions, *froissement* (manipulation of the skin and subcutaneous cellular tissue), etc., motions and attitudes suitable to produce temporary or artificial congestion in an organ." Hereafter Estradère disputes somewhat bitterly the honor thus given to Ling, and adduces abundant and interesting testimony to show that "Ling's entire system was but a compilation of all the exercises, frictions, and manipulations which had been practised before him among many nations. The method of Ling is that of the Brahmins of India; it is that of the

* Concluded from page 150.

Egyptian priests; it is that of Asclepiades, of Pythagoras and of Herodicus, one of the masters of Hippocrates; it is that of which Hippocrates, Celsus, Galen, Rufus of Ephesus, and other physicians, Greek and Roman, have preserved fragments for us. All the movements which Ling has indicated are described in the Cong-Fou of the Tao-Ssé." However the genius of Ling, and the claims of priority made for him, may have been disputed, there seems to be no doubt as to the merits of the system which he rescued from oblivion, and to all accounts put upon a scientific basis. "In the rooms of the central establishment at Stockholm persons of every condition and age, the healthy as well as the sick, executed or were subject to the prescribed movements. The number of those who adopted the use of the therapeutic movements increased every year, and among them were even physicians who, in the beginning, had been the most opposed to Ling." In 1844 the Supreme Medical Board of Russia appointed two members of the Medical Council to inquire into the merits of the movement and manipulation treatment as practised by M. de Ron, one of Ling's disciples, at St. Petersburg. He had then been using it there for a period of twelve years, and from the highly commendatory report of the Councillors we quote the following:

"All passive movements (those which are executed by an external agent upon the patient), as well as active ones (produced by the effort of the voluntary muscles), and the different positions, with the aid of apparatus or without it, are practised according to a strictly defined method, and conducted rationally, since they are based upon mechanical as well as anatomical and physiological principles. *Experience teaches us the usefulness of the institution, as many persons thus treated have recovered their health after having suffered from diseases which could not be cured by the ordinary remedies.* We must also mention the testimony of Dr. Bogoslowsky, who himself, after having been cured in that institution of a chronic disease, has practised diligently these movements (including friction, manipulation, etc.), and who, being appointed consulting physician to that institution, has since then had opportunities enough of observing and witnessing numerous cures." *

In Sir John Sinclair's Code of Health and Longevity we are told that Admiral Henry cured himself of rheumatism by means of friction and percussion with instruments made of bone polished smooth, cork hammers, and the bottom ends of glass vials. He was at that time, 1810, seventy-nine years of age, and had suffered from rheumatism for twenty-eight years. There were swellings in his knees, ankles, and insteps which made him quite a cripple, so that he could only crawl about. He persevered in the frictions and percussions night and morning for three years, at the end of which, it is said, he had completely succeeded in removing the swellings, and had restored himself to the use of his limbs. The fingers of one hand were swollen and contracted, it was thought from gout, but by the persistent use of his instruments they became quite flexible. Many of these operations of deep rubbing and percussing the admiral described as being at first painful; but they ceased to be so after having been persevered in for a little while, and became even pleasant and so useful that, after having gone through with them in the morning, he felt better all day. "If regularly done for some time," says the admiral, "the muscles become so sound and firm that neither pinching nor beating with violence gives any

pain, while with the improvement of the frame the mind becomes stronger, the spirits improve, and the faculties are strengthened."

In 1782 a cataract began to form in Admiral Henry's left eye. He was accidentally led to try rubbing in a peculiar way, with the result, it is stated, that in less than two years the cataract was dispersed. Two years later a cataract came in his right eye, and this he was persuaded to have removed more quickly than the other had been. It was operated upon by a distinguished oculist of London, in 1799, and he lost the sight of it, so that, had it not been for the successful dispersion of the cataract in the left eye, the admiral was sure he would have been entirely blind.* After the cataract operation the admiral suffered from excruciating facial neuralgia for a year, which reduced him to a state of great weakness. Having used various remedies with but temporary relief, he then tried deep rubbing with his instruments, and thus, it is said, completely removed the complaint. He kept up his frictions and percussion as a means of preserving his health, and the result was that at the age of ninety-one he enjoyed the activity of middle life, and had attained to as good a state of health as any man in England. In a letter to a friend, dated March 1, 1823, he writes: "I never was better, and at present am likely to continue so. I step up and down stairs with an ease which surprises myself. My digestion is excellent, and every food agrees with me. I can walk three miles without stopping."

The admiral's system of massage was rather rough, and probably nothing would have inspired him with such perseverance but the enthusiasm arising from the firm belief that he had discovered and invented a new system of treatment. What he observed with regard to his procedures being at first painful, but subsequently becoming agreeable, is very true, and has been often noticed by others in a variety of cases more recently, some even intimating that in this they have made an observation hitherto unknown. It is difficult for some people to imagine that matted, rigid, and painful tissues can become of natural suppleness, elasticity and feeling, under the use of massage; as well as the fact that flabby, over-sensitive tissues deficient in size, tone and firmness can often be made, by means of massage, to assimilate the nourishment necessary to their proper formation. On this subject let old Celsus again speak. "For a thing becomes constricted when we take away that which by its interposition produced relaxation, and softened when we remove that which caused its hardness, and filled, not

* Other cases of a similar kind might be quoted, but it must not be forgotten that cataracts sometimes improve for a time, and they have even been known to disappear of their own accord. Dr. Pagenstecher, of Wiesbaden, a trustworthy oculist, has used massage in two cases of epiphora, and one of parenchymatous keratitis, with "such favorable results that he no longer hesitates to report them." Of the rapidity of improvement, he says he has "never observed the like with other methods of treatment;" and, however his further attempts may turn out, "still the significant fact remains that one can by means of massage diminish the intraocular pressure in suitable cases.—*Centralblatt für Prakt. Augenheilkunde*, Dec., 1878.

I have used massage of the head and locally with marked and permanent improvement in three cases of muscular asthenopia: one a myopic patient, one a hypermetropic—both of whom had had their refraction long before attended to—and one an emmetropic patient. This is not the place to speak of the tangible changes which occurred in the accessible tissues, and which coincided with, or even preceded improvement in these cases; nor is there room to speak of the manner of using the massage, which was not by superficial friction, as is generally supposed. Nor yet is there space to discuss the rationale; but it may be pardonable to suggest that if there may and does arise a dozen different affections of the eye from cold, exciting a neuralgia of the infra- or supra-orbital nerve (see *Arch. de Médecine*, July, Sept., and Nov., 1854, and Brown-Séquard's *Lectures on Functional Nervous Disorders*, 1868), why is it not reasonable to expect improvement in as many maladies of the eye from the use of massage, which acts in a reverse manner from cold, but through the medium of the same tissues—provided the affection is not beyond recovery? D. G.

by the rubbing, but by the food which afterward penetrates to the skin which has been relaxed by a kind of digestion or removal of its tissue."

A curious old book is that entitled: "A Full Account of the System of Friction, as adopted and pursued with the greatest Success in Cases of Contracted Joints and Lameness from various Causes, by the late eminent Surgeon, John Grosvenor, Esq., of Oxford." About a century ago Dr. Grosvenor was professor of surgery for many years at Oxford. His skill and reputation became so great that he was soon in possession of all the surgical practice at Oxford, and on every side of it within a radius of thirty miles. "He practised simply as a surgeon, in the proper and strict sense of the word; and while he never condescended to soil his fingers with the preparations of pharmacy, he constantly refused at the same time to invade the province of the physician. In the latter period of his practice, Mr. Grosvenor rendered himself justly celebrated throughout the kingdom by the application of friction to lameness or imperfections of motion arising from stiff or diseased joints. He had first used it with success in a complaint of his own, a morbid affection of the knee; and by degrees its efficacy was so acknowledged that he was visited by patients from the most distant parts, of the highest rank and respectability—among others, by Mr. Hey, the able surgeon of Leeds. Those who have benefited by the process pursued under his own immediate superintendence in cases of this sort, and from total inability have been restored to a free use of their limbs, are best able to attest his merits. That he was scarcely in any instance known to fail was perhaps attributable to the circumstance that he used his utmost efforts to dissuade from coming to Oxford to try the experiment every one of whose case, from previous communications, he entertained any doubt. Possessed at this time of affluence, he became very indifferent about business, and, at a time of life when he was still capable of active exertions and his strength was but little impaired, he began to contract his practice. For the last ten years of his life he had wholly given up his profession, except in the instances of his rubbing patients."

It may be worth while to mention the cases in which Mr. Grosvenor found massage most serviceable, inasmuch as its value in similar cases has since been confirmed by others. "First, contractions of the joints, unattended with inflammatory symptoms, proceeding from cold, dampness, or rheumatism, attended with languid circulation, and thickening of the ligaments. Secondly, in those cases where there is too great secretion of the synovial fluid, particularly in the knee-joint. Thirdly, after wounds in ligamentous, tendinous or muscular parts, where the function of the limb or part is impaired; but here it should not be made use of till the inflammation and tenderness have subsided. Fourthly, in cases of paralysis. Fifthly, those of chorea, combined with attention to the system. Sixthly, Violent strains of joints, when the inflammatory symptoms have entirely subsided.* Seventhly, in

incipient cases of white swelling this is almost the only remedy that has been found effectual, and it has frequently happened that joints absolutely condemned to the knife, and on the point of being amputated, have been saved and their use restored by this method. After fractures of the articulating extremities of the joints, as when the bones are united, a stiffness generally remains. In all the various dislocations of the joints, when the motion of the joint is left impaired, after the inflammation has subsided. After ruptures of tendinous or ligamentous parts, provided they are firmly united."

Another "quaint and curious volume of forgotten lore," is that of "Illustrations of the Power of Compression and Percussion in the Cure of Rheumatism, Gout and Debility of the Extremities, and in Promoting Health and Longevity. By Wm. Balfour, M.D., Edinburgh, 1819." Dr. Balfour claimed for himself the originality accredited to Dr. Grosvenor by his friends, viz., that of discovering a new method of treatment, without inquiring if there were any previous data to start from. This fact, however, makes their testimony all the more valuable and unbiased, which we can doubtless trust, for they were eminent practitioners in their day, and any one who reads their books would certainly say honest as well. Dr. Balfour's book is mainly made up of reports of cases of rheumatism, gout, neuralgia, sprains, and the results of injuries treated by means of percussion, deep rubbing, and firm compression with bandages. The cases are well reported, and are interspersed with forcible and philosophical remarks. Those who received tight strapping in sprains a few years ago would have done well to have first looked into old Balfour. The following from the introductory chapter is a specimen of how the doctor regarded those of his professional brethren who did not adopt his views so readily as he thought they should have done. "Medical practitioners encourage their patients in giving perfect rest to parts affected with rheumatism and gout, till, as often happens in the latter disease, the vessels change their actions altogether. It is incumbent on such practitioners to show that there is greater security to life in painful, rigid, and swollen limbs, and in frequent and long confinement, than in the free and equable circulation of the blood through every part of the body and in exercise in the open air. It is incumbent on them to show that life is more secure when the functions of the body are imperfectly than when duly performed. . . . It was observed by Lord Bacon that knowledge more quickly springs from absolute ignorance than from error. It is much easier, surely, to instruct the ignorant than to convince the prejudiced. But, in spite of the hostility that has been shown to the practice illustrated in the following pages, I have the satisfaction to see it adopted at last by physicians of the first eminence.* It may with truth be affirmed that there never was an important improvement made in the practice of medicine yet but what met with opposition. Mercury, bark, cold affusions in fever, vaccination, all experienced it. Nay, Harvey himself lost his practice on account of discovering the circulation of the blood."

From his own extensive general practice, Dr. Balfour selected cases for his new method of treatment. Many of these, from a state of chronic invalidism, improved rapidly and got well, and there were but few who did not receive some benefit. His remarks on the effects of percussion have not yet been excelled; nothing in the recent German reports on

* Inflammation does not, by any means, contraindicate the use of massage in such cases, for, in the words of Berghmann and Hellday, "massage will simultaneously further and increase resorption, accelerate the circulation, relieve pain, and reduce elevated temperature." If any one wants to look into this matter, they will find in my report on the treatment of sprains by massage (in the New York MEDICAL RECORD, No. 353, 1877) the results of this method in 813 cases by ten different observers, independently of one another. Though the inflammatory symptoms in many of these cases were severe, yet the results of the use of massage in all showed that they recovered, or were cured, in one-third of the time required for similar cases treated in the usual methods alone. But no surgeon will believe this unless he has tried it for himself, or been treated in this manner for a sprain in one of his own joints.—D. G.

* Vide Transactions of the College of Physicians, Dublin, vol. I.

massage equals them. Says he: "Whoever has the slightest acquaintance with natural philosophy and chemistry knows that percussion produces wonderful effects on inanimate bodies. A mason will cut a stone of immense thickness perpendicularly through by a few strokes of a hammer. A few strokes of a hammer will drive home a nail on which an immense weight gradually applied would have little or no effect. A smith's anvil may be made hot by continued and forcible hammering. Is it surprising, then, that a power which produces such wonderful effects on inanimate matter should exert a powerful influence on the living body? If I apply percussion in the course of the sciatic nerve of a person laboring under sciatic rheumatism, a pleasurable vibration will be communicated through the whole limb, the nervous power being thereby diffused. If I apply percussion to a paralyzed limb, I thereby attract to it the nervous energy. If I apply percussion to limbs debilitated by rheumatism, gout, or old age, I thereby excite the action of the vessels and nerves, promote the circulation, and restore that heat of which they are deprived through inactivity and the weakness of the powers of life." *

A paragraph from Estradère will indicate sufficiently the state of massage in France in 1863, and, so far as I can learn, at the present time also: "Although numerous observations upon the benefits of massage in certain affections have been communicated to the Academy of Sciences and other learned societies; although some physicians became alarmed at the enormous practice of an empiric, Moltenot, who massaged at Orleans in 1833, and entreated the Court of Justice for a sentence against him; although Récamier and his pupils, Séguin and Maisonneuve, had lectured upon massage before all the learned societies; although in these times the most distinguished physicians of Paris very often prescribe massage; yet, for all that, it is still under the domain of empiricism, because physicians are content with indicating its therapeutical results, without interrogating anatomy and physiology for the reasons of these results. Nevertheless, this age has a tendency toward improvement in this matter, and already the physiologists have given some satisfactory explanations of the effects of massage, passive and mixed movements."

About seven years ago Dr. Mezger, of Amsterdam, treated the then Danish crown prince successfully for a chronic joint malady by means of massage, which he used in a manner original to himself, and in accordance with the teachings of physiology and pathological anatomy. When the prince got well he sent a young physician to Amsterdam to study Dr. Mezger's method of applying it, and soon after many old as well as young physicians visited the clinic of Mezger, and they all agreed that the so-called massage, used in Mezger's manner and according to the indications which a very large experience has enabled him to point out, is a most worthy agent in various affections of the joints, besides in inflammations and neuroses. They consider that credit is due to Mezger for having improved massage in a physiological manner, and for having brought it to be acknowledged as a highly valuable method.

A few extracts from the very excellent and compre-

hensive report on massage, in *Schmidt's Jahrbücher*, Vol. 166, 1875, will show the estimation in which it is held by some of the first German physicians. The reporter begins by saying that "it is but recently that massage has gained an extensive scientific consideration, for it has passed out of the hands of rough empirics into those of scientific, cultivated physicians; and, upon the ground of the results of recent scientific investigation, it has been cultivated into an improved therapeutical system. The Danish physician, Mezger, has won the merit of having made massage in its entirety a special branch of the art of medicine." Then follows a list of forty articles on massage, by a score of authors, mostly Scandinavian, only one being American. The manner of using massage and its physiological action are next described; and, after this, the results of massage in similar cases, treated by different authors, are grouped together and compared—so many cured, so many benefited, and so many not relieved. The report concludes by saying that, "if massage is to be of any use, it ought to be applied by those who are absolutely physicians; for the brilliant results which have just been cited depended upon an exact knowledge of anatomy and physiology, and also upon recent progress in medical and surgical pathology, which enabled the operators to make an accurate diagnosis. A very important part of the qualifications necessary for the effectual performance of massage depends upon the physical qualities of the manipulators; they require strength of hands and fingers, endurance and elasticity, which every physician does not possess; and herein lies the danger that the practice of massage will pass into the hands of the laity, who, again, have not the other requisites, viz., medical knowledge." *

It would not be doing justice to this brief historical sketch of massage to omit the description of *lomi-lomi* given by Nordhoff in his "Northern California, Oregon, and the Sandwich Islands," 1874. "Wherever you stop, for lunch or for the night, if there are native people near, you will be greatly refreshed by the application of *lomi-lomi*. Almost everywhere you will find some one skilled in this peculiar, and, to tired muscles, delightful and refreshing treatment. To be *lomi-lomied* you lie down upon a mat, or undress for the night, if you prefer. The less clothing you have on, the more perfectly the operation can be performed. To you thereupon comes a stout native with soft fleshy hands, but a strong grip, and beginning with your head and working down slowly over the whole body, seizes and squeezes with a quite peculiar art every tired muscle, working and kneading with indefatigable patience, until in half an hour, whereas you were weary and worn out, you find yourself fresh, all soreness and weariness absolutely and entirely gone, and mind and body soothed to a healthful and refreshing sleep. The *lomi-lomi* is used not only by the natives, but among almost all the foreign residents; and not merely to procure relief from weariness consequent on over-exertion, but to cure headaches, to relieve the aching of neuralgic or rheumatic pains, and by the luxurious as one of the pleasures of life. I have known it to relieve violent headache in a very short time. The chiefs used to keep

* Percussion can be performed in half a dozen different ways with the hands and fingers, varying in force and rapidity. I have recently had two india-rubber air-balls, securely fastened on the ends of whalebone handles, for this purpose. Balls 2 in. diameter, and handles 11 in. long, are most suitable. They work most admirably, as one gets the spring of the whalebone with the rebound of the balls, thus gaining great rapidity of motion, with easily varying intensity. It takes considerable practice to become expert in using them.

* Prof. Von Mosengeil, of Bonn, speaking of massage, says: "Its value must be recognised; but it is not adapted for every-day use by every physician; nor will it be much used in hospitals, for lack of time. The best results will be obtained by the few who bring to its use abundance of time, patience, skill, and strength. Specialists, therefore, will probably get the most satisfactory results from it. (Arch. f. klin. Chirurg., XIX., 4, 1876).—D. G.

skilful *lomi-lomi* men and women in their retinues; and the late king, who was for some years too stout to take exercise, and was yet a gross feeder, had himself *lomi-lomied* after every meal as a means of helping his digestion. It is a device for relieving pain and weariness which seems to have no injurious reaction and no drawback but one—it is said to fatten the subjects of it."

Though massage in some form or other is in all probability a primitive institution among all nations, yet the word skilful is not used amiss here by Nordhoff; for some people have a natural tact, with a peculiar quality of strength and structure of hands, which render them vastly superior as manipulators. Add to these the improvement acquired by long practice, and the enlightened experience which a medical education alone can lead to, and we have such a person to use massage as those only will appreciate who have had less favored manipulators apply it to them. It is a pity that there are not more epicures in this matter, who would willingly place the different operators in massage on their merits, irrespective of the policy of others in employing ignorant and incompetent rubbers. There are as great variations in hands for massage as there are in voices for singing. A person who has a naturally charming voice well cultivated is estimated very highly; a person who has by practice and education cultivated the use of a pair of hands excellently adapted for massage, probably never will be estimated so highly or rewarded so richly, but the efficient work which they can do is second to no other of a different kind, and it is as soothing, charming, and beneficial to many invalids as sweet music is to those who are harassed with the corroding cares of life.

"*Lomi-lomi* is said to fatten the subjects of it" (by stimulating the nutritive processes). This, with the above remarks about the late king of the Sandwich Islands, might easily have furnished an indication to the purpose for which massage was used in the class of cases described in the very interesting little book entitled "*Fat and Blood, and How to Make Them*," which was not published until three years after Nordhoff's book—sufficient time to give the suggestion a trial. The author of "*Fat and Blood*," in the chapter on massage, says he has some facts to relate with regard to it which, he thinks, are not known on either side of the Atlantic. In view of this statement, these facts ought to be of great value. What are they? and what is the author's own estimate of them? Evidently they are the changes of temperature produced by massage. "These facts are, of course, extremely interesting," says Dr. Mitchell, but it is well to observe that the success of the treatment is not indicated in any constant way by the thermal changes, which are neither so steady nor so remarkable as those caused by electricity." The reviewer of "*Fat and Blood*," in the *American Journal of the Medical Sciences*, January, 1878, attaches a great deal more importance to these changes than the author himself does; says he: "Although it has been noted by Trousseau that the increased warmth of the skin produced by massage is due to the more active cutaneous circulation, it was reserved to Dr. Mitchell to put this point on an exact scientific basis by a series of accurate thermometric observations." If the success of the treatment is not indicated by these changes, of what value are they as a scientific basis? It is not very clear that they have any relation to a scientific basis at all in the class of cases referred to, for, by the author's own confession, they may, to all intents and purposes, be disregarded so far as any utility is concerned.

MILK WITH LIME-WATER IN SCROFULOSIS.

By E. N. CHAPMAN, M.D.,

BROOKLYN, N. Y.

CORRESPONDING MEMBER OF THE SOCIÉTÉ MÉDICO-PRATIQUE DE PARIS.

THERE is a large proportion of children in every community whose vitality is below the normal average. They sicken on slight provocation, respond poorly to remedies, and, before the cure is attained, succumb to some new ailment. Exciting causes that would be inoperative in a well-balanced constitution meet with feeble resistance, and disorders that nature should successfully combat linger in an atonic form, in spite of the care of the mother and the skill of the physician. Morbid action extends from point to point, implicates the most diverse structures until, eventually, the whole organism seems involved in a general revolt against those laws, the harmonious operation of which constitutes health. The digestion is labored, the assimilation imperfect, and the blood depraved; the nerves are irritable, the secretions defective, and the excretions insufficient. The repair and waste are not in accord; the new and the old materials load the circulation, and the several processes by which food is worked up into vitalized, and thrown off in devitalized products, are slowly and imperfectly accomplished. As a necessary result, every member of the body is prone to many forms of disease, usually of the inflammatory type, which, however active it may appear, is always of a low grade, and never bears a reducing course of medication.

In a strumous person there is a defect at every stage of that preparation by which the food is converted into the living organism. The machinery having been poorly constructed, the work is of course poorly done. What is worse, the fault is usually inherent, and dates back to a hereditary taint, developed in the ancestral line years before the subject saw the light.

To overcome this vice, and institute a new order of things, the attempt is made to supplement the defects of digestion by adding to the diet, and to correct the error of assimilation by administering drugs. A bitter is given to excite the appetite; pepsin, to aid the stomach; pancreatine, to emulsionize the fat; meat, to make muscle; phosphorus, to nourish the brain; iron, to color the blood; and oil, to impart heat. All this while, as the indications seem to require, the phosphates, iodine, cod-liver oil, etc., are employed to revolutionize the system, and bring order out of disorder.

These means, even when aided by the most favorable hygienic influences, are rarely of more than temporary advantage. The evil, suppressed but not conquered by the resources of art, soon rises in rebellion, reasserts its supremacy, and reduces the organic forces into subjection. The support being taken away, and the economy thrown upon its own resources, the various functions give way, fall into disorder, and leave the way open to the old enemy. In a word, this course demands constant surveillance, always secures a seeming advantage, but never wins a lasting victory.

The trouble in scrofulosis is not a deficiency of nutritious elements in the food, but a lack of preparation for absorption and assimilation. There is an abundance of albumen, sugar, oil, phosphorus, iron, and lime, and yet these constituents, so essential to health, do not reach the blood in a state fitted to meet the wants of the system. Besides, no inconsiderable

portion, being but imperfectly acted upon by the gastro-intestinal secretions, passes off in the feces. As a consequence, the blood is starved and the constitutional force reduced to a low ebb. In a healthy person, on the contrary, all these elements are extracted from the food and appropriated by the system. They are never needed as medicinal agents. This source is the proper one—the one always offering an abundance, and that of the best. An artificial supply can accomplish nothing more than the natural, unless means are first instituted to improve the digestive processes, as both must undergo the like changes before they can gain an entrance into the lacteals. Otherwise, the digestion will be more oppressed and the blood more deteriorated.

The true plan is not to give more and richer, but less and simpler food; not to increase, but to lessen the work of the stomach; not to attempt an artificial, but to restore the natural digestion; and not to depend upon drugs, but to regulate the diet. Fortunately, milk answers every requirement and is better than anything else, as it is capable of filling the place of both food and medicine in many grave emergencies. It is the only nourishment at the earliest period in the life of the mammalia; it contains all the elements of nutrition in the proportions needed to build up and sustain the animal frame; and it is the most digestible of all articles, when the casein has been rendered soft and flocculent by the addition of lime-water. Imposing little labor on the stomach, the milk restores its tone; prepares the way for other food; offers a better chyle to the lacteals; renovates the blood with new material, and nourishes every part with the albumen, oil, phosphorus, iron, lime, etc., needed to renew its energy and restore its integrity. In a word, the milk meets every indication in alimentation and medication.

LYMPHATIC GLANDS.

When scrofulosis manifests itself in a mass of enlarged, indurated glands that eventually suppurate, it is seldom possible to disperse them and eradicate all traces of their previous existence, save the white line left in the track of the knife. Meat fails to give strength, iron to make blood, quinine to brace the nerves, phosphorus to feed the brain, and iodine to correct the constitutional depravity. Wine, air, exercise, recreation, travel, and the many other agencies invoked with such signal advantage in most chronic disorders, are here important. Indeed, all accepted dietetic, therapeutic, and hygienic means, seem rather to clog the wheels of the vital mechanism, or at least to impart no permanent force to that already present. The faulty nutrition goes on, and declares itself at various times and in various ways until the advent of puberty, when the completion of the growth lessens the drain on the nutritive fluids, and allows nature to husband her slender stores.

Some four and a half years since a poor woman brought a son of hers, about seventeen years of age, to my office. He was markedly strumous; had always lacked blood, nerve, muscle, and force, and now presented a chain of glands on the right side of the neck that extended along the line of the sterno-cleido-mastoid muscle. These glands, much enlarged and intensely inflamed, soon suppurated, and were lanced. Holding an out-door position in an insurance company, the boy had been obliged to do a good deal of walking. This, together with a poor diet, seemed to have exhausted his nervous energy, and precipitated this greater manifestation of scrofulosis.

The glands, when they had fully matured by the

aid of poultices, were lanced, and then, while they continued prominent, were painted with the tincture of iodine. Rest and quiet were enjoined for a couple of weeks, and iron and quinine administered alternately for some two or three months. The main thing, however, was the regulation of the diet so as to adapt it to a weak stomach and insure a more perfect digestion. At first the patient was confined to milk, and milk scalded in a thin decoction of farina, with the exception of a sparing allowance of bread, crackers, and ginger-bread. As his appetite improved, oatmeal, an egg, potatoes, and broth, were added to the dietary; and, as his strength permitted him to take active exercise in the open air, milk was omitted at the mid-day meal, and fresh meat and vegetables substituted. This diet, with some substantial additions at breakfast, was followed for three years, and then discontinued, as further care seemed unnecessary.

He was strong and hardy; showed no signs of struma, not even indolent glands; joined a military company, and bore the strain on muscle and nerve as well as the others.

In October, 1878, he contracted a severe bronchitis, and some weeks after came to me, under the impression that he had tubercular disease of the lungs. Nothing was detected, however, more serious than mucous inflammation. This being subdued, he soon regained his health.

In August, 1877, I had another case of scrofulosis, identical in almost every particular with the preceding: The glands were on the same side of the neck, had the same location, presented the same appearance, disappeared in the same manner, and left only the same white line. The medical treatment consisted of quinine and iron, the dietetic of milk with lime-water, and the hygienic of air and exercise. At first he took milk alone; subsequently, milk with bread, oatmeal, potatoes, and fruit; and, at last, when he was strong enough to be out of doors, a plain meat dinner in the middle of the day. As in the previous case, the appetite was kept in advance of the supply, the regularity of the bowels promoted, exercise restricted to a point short of fatigue, and exposure to air and sunlight advised.

In the fall he had improved wonderfully in flesh, spirits, color, and strength, and during the winter he became as hale and hearty as other persons of his age. His appearance was far better than that of his brothers and sisters, whose pale and bloodless looks were in strong contrast with his full, ruddy face. The milk diet was followed for nearly a year, and then discontinued, as there seemed to be no further need of such stringent rules.

This young man was about a year older than the other, had nearly completed his second year in college, and had the ability, from his station in life, to conform to medical advice and obey the laws of health. In both cases, however, the removal of the cachexia, and the institution of healthful nutrition, was attained in about the same period of time. The success seemed due to the diet solely, and not to its accessories.

A plan of diet that can, after the failure of recognized methods of treatment, transform a weak and delicate into a strong and sturdy boy, and fit him to take his place beside those of robust constitutions in a prolonged course of severe training, must have a virtue in it meriting general recognition by the profession, although it places the theories so recently elaborated by physiologists and chemists in a light more than questionable.

In August, 1877, I was called to see a young man,

G. H., eighteen years of age, suffering from gastric fever. His digestion had always been sluggish, his assimilation poor, his muscles flabby, his nerves irritable, his health uncertain,—common characteristics of the lighter manifestations of the stromous diathesis. Though rarely ill, he had little endurance, lacked the wild, exuberant, animal spirits of youth, and had never exceeded one hundred and eight pounds in weight.

In June, 1876, he presented himself at the Naval Academy for examination, but was rejected as wholly unfitted, by his slender physical organization, for the severe ordeal to which the cadets are subjected. At this verdict he was greatly depressed, as it had always been the one great desire of his heart to follow the profession of his father, now some years dead.

The fever abating kindly, the stomach acquiring tone, and assimilation becoming active by the use of milk to the exclusion of all more stimulating articles, I told him that, by a rigid course of this character, followed for some months, he might yet attain to the vigor of body necessary to fit him for the naval service, and carry him through its hardships. He eagerly embraced the proposition, and, on the instant, was ready to meet any privations promising such full realization of his hopes.

That he might act knowingly, and follow the treatment faithfully, it was explained to him why the consumption of meat would not necessarily make muscle, or of oil, fat; or the taking of iron, blood, or of phosphorus, nerve-power; and why rich food and active medicine would almost certainly, were the digestion labored and the assimilation imperfect, intensify existing evils, and further obstruct nature in her attempts to perfect her varied vital elaborations.

The proper plan, as I strove to impress upon him, is, on the contrary, to relieve the overworked stomach by the use of food easily and promptly digested; to improve assimilation by the selection of articles containing the elements of nutrition in the proportions demanded by the wants of the system; to discard artificial aids—those designed more especially to force digestion and assimilation; and to rely solely on diet for the institution of those physiological changes whereby to set free the natural forces, and render them competent to their task.

In accordance with this plan, he was advised to take active exercise in the open air, to eat regularly and moderately, to abandon tea, coffee, spices, condiments, luxuries, and heating food, and to live almost exclusively on milk, prepared with lime-water and salt. A gobletful was to be taken at breakfast, supper, and bedtime, but not at the mid-day meal, which was to be more substantial, consisting of beef or mutton, bread, potatoes, and other vegetables. Acid fruits were allowed freely at all times of the day, for the purpose of exciting the liver and the intestinal glands, regulating the bowels, renewing the blood, and promoting the secretions and excretions. At breakfast, with the milk, were permitted bread and oatmeal or wheaten grits; and at supper, bread, crackers, and gingerbread.

As for medicine, he took for a while quinia and cinchonia, and then colombo and the pyrophosphate of iron.

By following this dietary for eight months, though he received no aid from other sources save these tonics, he developed into a vigorous young man, the picture of health, and gained thirty pounds in weight. Applying for admission into the marine service, as less exacting than the naval, he had no difficulty in passing the ordeal. One of the examiners of the

Naval Academy, a friend of his father, told him that he would have been accepted by the board without the slightest hesitation, had he then presented such a fine physique as now.

As showing the complete revolution effected, and the permanent benefit conferred by the milk diet, I should mention that, though the boy had to give up milk and conform to the regulations of a revenue cutter, his health remained intact, and his vitality equal to that of his comrades. At the present time, he holds his own with the most active and athletic, and stands at the head of his class.

In Pott's disease of the spine there is an urgent necessity for a more healthful nutrition, in order to check the disintegration going on in the bodies of the vertebrae, and supply the material for their repair. To attain this end, the quality of the food, the activity of the digestion, and the completeness of the assimilation are the main factors, inasmuch as the various structures are being constantly renewed by the product thus prepared. If the new material that replaces the old be more highly elaborated and better furnished with the elements of nutrition needed by the several parts of the organism, the foundation will be laid for permanent improvement. Now other helps are available—mechanical contrivances to support the shoulders and straighten the spine, and therapeutic means to fortify the system. If the diet be neglected, or directed without regard to the feeble powers of the stomach, the assimilation will become still more defective, and the disease still more intense, however skilfully an apparatus may be adjusted and medicine administered.

Moreover, in most cases of caries of the bones, the scrofulous cachexia is pronounced—a condition in which the taking-down and building-up processes are accomplished imperfectly. There is need, not of more, but better material; not of richer, but simpler food; and not of greater, but less work for the stomach, as already the digestive organs stagger under the burden imposed, and are incapable of acting more energetically.

The vice of scrofulosis so generally resists the best efforts of the physician, that, should disease of the bones supervene, he would anticipate little good from diet and medicine. On the contrary, his chief hope would be in mechanical devices and the silent influence of time, growth, air, sunlight, exercise, and the like.

H. B. fell, when fourteen months old, from the third-story window to the piazza below. As he fell, his back struck a blind partly open. At the time his injuries did not seem serious; there was not even a bruise to be seen; but, after a while, he was restless and peevish, cried a great deal, and screamed when moved.

Contracting pertussis in his fourth year, this pain in the back, which had steadily increased from its first appearance, was greatly aggravated by the paroxysms of coughing. Soon there was local tenderness and a projection of two or more dorsal spines. The deformity increasing, the erect posture became more and more intolerable.

In a few months the progress of the disease was so rapid, and the intensity of the suffering so severe, as to demand the use of an apparatus. This supported the weight of the upper part of the body, relieved the more urgent symptoms, promoted sleep, and allowed exercise, but accomplished little toward a cure.

Whenever his stays and braces were removed, the angularity of the spine seemed as great as, if not greater than before, and the old pains returned in full force. The boy did not improve in flesh or blood,

and appeared weary and worn. This while he had taken tonics and a full animal diet.

After the trial of the apparatus for eight months, it was determined to adopt another plan of feeding: one much lighter, less stimulating, and more assimilable, consisting of milk with lime-water, and vegetables, to the exclusion of meat, except at the mid-day meal. For breakfast he had milk, oatmeal, and bread; for dinner, broth, potatoes, bread, and rice; and for supper, milk, bread, and ginger-bread. He also had milk at ten in the morning and at nine in the evening, and, at all times, an abundance of acid fruits.

This plan, adopted in the fall of 1874, was steadily followed until the boy's improvement seemed to justify a larger range in his dietary. It was, however, as late as the winter of 1878 before he was allowed to eat at the table with the others. In the meantime the bodies of the vertebræ had become consolidated, the spine straight, save a knuckle-like projection, his body vigorous, and his health perfect.

At this date (June 15, 1879) he is as active as his fellows, stands erect, joins in rough sports and active games, and presents no peculiarity, except a slight disproportion between the length of his trunk and limbs. His height is three feet eleven and one-quarter inches, and his weight fifty pounds—a development equal to many boys of nine years—his present age.

If the milk diet can thus revolutionize digestion and assimilation, renew the normal play of the physical forces, and convert an unstable into a stable organization, and that, too, when the seeds of scrofula have taken root and borne fruit, may it not at an earlier day forestall their germination and growth, and give the child a good chance in the "survival of the fittest"? This certainly has been the case whenever a proper plan of feeding has been adopted. In such children the digestion is good, the nutrition active, the face ruddy, the body solid, and the nervous system well balanced; and rarely do the manifold ills, so common to the lymphatic temperament, disclose themselves. This holds true, even when the surroundings are none of the best, and the laws of health are violated in many particulars. The diet imparts a power of resistance that renders exciting causes inoperative.

Were children fed with due care, struma would in two or three generations be eradicated, the public health improved, the general efficiency increased, and the common happiness advanced. Even poverty would be more tolerable when strong arms fought the battle, and crime less prevalent when healthy blood nourished the heart and brain.

The milk diet being thus efficient in the scrofulous diathesis, both as a curative and preventive agent—one that steadily and silently furnishes the means of renewal and regeneration to the tissues—it is not too much to expect similar results in other diseases, the sequels of depressed vital action.

Scrofula and phthisis are near of kin, the one being often the parent of the other. At least, each springs from a common stock, and presents the same general characteristics. In tuberculosis, the treatment revolves about one central idea: the support of the vital forces in their effort to throw off the disease. The main point always is the power of resistance.

As these two diseases present the same indications, and are, perhaps, only different stages of the same pathological condition, good results ought to be attained at an early stage of tuberculosis by the milk diet.

In 1875 a boy, three years of age, slowly recovering from an attack of gastric fever, was taken with a

violent paroxysmal cough. This reduced him very much. He loathed food, perspired at night, and lost flesh. At a small circumscribed space in the upper lobe of the right lung the vesicular murmur was absent and the percussion-note flat.

Thinking the case serious, I told the parents that their boy would soon run down with consumption unless they disregarded his fancies and caprices, and enforced a systematic plan of diet; and, on the other hand, that he might possibly resist the disease and regain his health, were his appetite and digestion so restored as to afford him the requisite strength.

Compliance with rules being promised, the boy was ordered the half of a tumblerful of milk with a table-spoonful of lime-water and a grain of salt every two hours. All else, whether food or medicine, was interdicted, with the exception of twenty drops of whiskey to each feeding. Subsequently, as in the cases related above, other articles of food were added, and quinia and cinchonia given.

Near the close of my attendance, cod-liver oil, with the phosphates, was substituted for these alkaloids, and, in conjunction with the milk diet, continued four or five months.

Although the prognosis was still grave, as the permeability of the lung had not improved, yet there was cause for encouragement, as there had been a steady improvement in flesh, blood, and nerve. Eventually, the lung regained its normal condition, and now the boy seems as well as any of his playmates.

In the fall of last year a case similar to the last came under my care. There were present anorexia, emaciation, and cough, preceded by gastric disorder, and attended with dulness and harsh râles at the apices of both lungs. The treatment, with the exception of cod-liver oil and the phosphates, was the same, and the result equally fortunate, but secured in a much shorter space of time. The milk was continued alone until the digestion resumed its office, and the appetite demanded a more substantial regimen, when, as before, a greater latitude of choice was permitted.

In both of these cases there was, doubtless, at the start, a congestive condition of the gastro-intestinal mucous membrane, similar to that described by the older writers as worm fever. This congestion resolved itself under the influence of a bland, unstimulating diet, and set free the various glandular secretions, the office of which is to transform the food into chyle and prepare it for absorption by the lacteals. The digestion being thus restored, the blood was supplied with proper material, the nutrition placed on a healthful basis, and the lungs rescued from impending danger.

To me it seems plain that, however urgent the call may be to invigorate the patient and augment his vital resistance, it is of the first moment to adapt the means to the capacity of the stomach. Strong food and active medicine are not unfrequently out of place before a simple plan of diet has relieved the irritability of the *primæ viæ*, and restored the digestive organs to their normal activity.

SCOTT'S EMULSION OF COD-LIVER OIL.—Dr. J. E. Garretson, of Philadelphia, writes that in phthisis he has used the emulsion with hypophosphites of lime and soda with notable success. When cough is troublesome he combines atropia with it; and when it does not digest well he adds sulphuric ether, diluted with two parts of alcohol, the ether being regarded as a stimulant to the pancreas.

A UNIQUE CASE OF COMPLETE PHARYNGEAL STRICTURE OF SPECIFIC ORIGIN.

By JOSEPH MEYER, M.D.,

EX-HOUSE-PHYSICIAN TO CHARITY HOSPITAL, N. Y.

(Reported with Prof. Oertel's permission from his Clinic at München.)

A MAN, thirty-three years of age, had a chancre three years ago, followed by eruptions of secondary syphilis, which got well under mercurial treatment. For the past year he had no specific trouble of any kind, and no treatment, until Dec. 25th. He then began to complain of a sore throat, which, with ordinary remedies, got no better, but rapidly worse. On the 10th of January he presented himself to Prof. Oertel at his clinic, when, upon examination, the posterior wall of the pharynx, and sides of the pharynx and uvula were inflamed, reddened, and infiltrated; on the uvula beginning ulcerations were noticed, also on the surface of the tonsils. At this time a gargle was ordered, and he was asked to call again in a few days. Prof. Oertel having been called out of town on the 13th of January, the patient did not again present himself till the 15th, when he was brought into hospital in a dying condition, almost suffocated, with intense dyspnoea, breathing long and wheezing, inspirations 10-12 per minute, pulse almost imperceptible, surface of body cold, face and hands cyanosed, and almost voiceless and speechless. Examination by Professor Nussbaum gave little satisfaction, simply showing an occlusion of the laryngo-pharyngeal space by a stricture, ulceration of posterior pharyngeal wall in a reparative condition, uvula drawn to right pillar of pharynx and there attached; and perforation of soft palate. What condition the larynx was in could not be determined; opening through which he breathed could not be seen. It was supposed that the ulcerative process had destroyed the epiglottis, and closed the upper portion of the larynx. The indication was tracheotomy, which was immediately performed by Professor Nussbaum, with prompt relief to the patient, so that he was able to leave the hospital in a few days, after having been put on mixed treatment. On the 25th of January he again presented himself to Professor Oertel for further treatment. Examination showed an almost complete stricture of the pharynx, extending from the base of the tongue to the sides and posterior wall of the pharynx, a small opening, not even admitting a probe, a little to the left of the centre of the stricture, which formed a sort of lid over the larynx and oesophagus. Through this small opening the patient took food and breathed. Posterior wall of pharynx of an ash-gray color, presenting an arch-like appearance. No more ulcerations; soft palate perforated and uvula attached to right side of pharynx. Patient wore a tracheal tube; now only had occasional attacks of dyspnoea, with an occasional choking and coughing when he attempted to swallow quickly. He could only take liquid food, but sufficient to sustain him. Opinion of Professor Oertel was same as that of Professor Nussbaum, that epiglottis was destroyed and upper portion of larynx was closed by the stricture. Condition of vocal cords not known; how larynx closed during deglutition—for food and air passed through the same small opening—was not known. I thought, and Professor Oertel agreed with me, that during the act of deglutition the base was lifted and drawn backward in such a way as to approach post-pharyngeal wall, bringing the small aperture over the oesophagus, at same time closing the larynx, the closure being aided by the aryteno-epiglotti-

dean folds, which, although they could not be seen, were supposed present, and cases of complete destruction of the epiglottis, reported by Bruns, Türck, etc. Its function was known to be replaced by those folds, and in my opinion aided by the tongue (base) approaching the pharyngeal wall. Professor Oertel proposed to operate; to dilate the opening with a knife. Sounds were passed every other day to get the patient used to an instrument, till February 10th, when the first operation was performed. An incision was made forward toward the tongue; bleeding was slight; he was ordered to gargle cold water. At this time it was noticed that he could gargle much easier. When he was asked if it pained him, he said, "only a little" so distinct that everybody present understood him, he having been almost voiceless and entirely speechless. This operation was followed by two more on the 13th and 18th of February, two lateral incisions then having been made; opening would then admit a finger. Examination after second operation showed, to the astonishment of all present, that the larynx was perfectly intact, epiglottis was entire, vocal cords were normal. He could now breathe without the tracheal tube, deglutition was no more interfered with, and the patient rejoiced in the fact that he was again able to drink lager-beer.

The principal points of interest in this case are the completeness of the stricture, its seat, the rapidity of the ulcerative process, the rapidity of the reparative process at the time without specific treatment, and the larynx being perfectly intact.

Reports of Hospitals.

THE PHILADELPHIA HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

SPRAINS.

THE routine treatment of sprains is that first introduced by the late Dr. Paul Goddard. The injured part is placed in a bath at the temperature of 70° F. The temperature of the water is then gradually raised until the extreme point of toleration is reached. This hot-water treatment has in every instance been followed by the most excellent effects.

GONORRHOEA IN THE MALE.

Dr. J. H. Brinton employs carbolic acid, in the shape of a solution containing gtt. ij. of the acid to f. ʒi. of lime-water, as a local application in the acute stage of the disease. At the same time cubebs is administered internally in doses of a tablespoonful in half a tumblerful of water three or four times a day. This dose is pushed until diarrhoea or nausea supervene, when the quantity is reduced.

STRICTURE.

Dr. S. W. Gross considers that the only rational treatment of stricture consists in the restoration of the normal calibre of the urethra at the affected portion, and that the meatus should therefore be enlarged so as to admit of the passage of an instrument of the size adapted to restoring the constricted part (whose dimensions may be ascertained by means of the urethrometer devised by Dr. Gross) to its original dimen-

sions. Dr. Gross claims, however, that *dilatation never effects a permanent cure*, and should therefore never be employed except in those cases where there is disease of other portions of the urinary apparatus.

He treats stricture almost entirely at present by internal urethrotomy, since he has determined from post-mortem examinations that there are very often submucous bands which resist the action of the divulsor.

Having determined upon internal urethrotomy, he first allays the spasm and tenderness of the urethra by passing at first, and at long intervals, a moderate-sized conical steel bougie, gradually increasing the size of the instrument and decreasing the length of the intervals. If the meatus is the seat of stricture, or is smaller than the rest of the urethra, it is cut as a preliminary measure.

Ten grains of quinia are given before the operation, and the patient is made to pass his water so that the wound made by the urethrotome may have become glazed before the next act of micturition. The rectum is always emptied before the operation. Dr. Gross employs a urethrotome devised by himself, and made by Mr. G. Tiemann, of New York.

Immediately after the operation a conical steel bougie, whose size corresponds to that of the normal urethra, is passed and withdrawn, and one-third of a grain of morphia is thrown under the skin. The patient is then confined to bed for forty-eight hours. The bougie should be introduced once every day for some time after the operation. Dr. Gross considers internal urethrotomy from behind forward the most effectual operation.

The treatment of stricture of the urethra followed by Dr. Brinton is not an exclusive one. In the majority of cases he relies upon gradual dilatation, especially when the stricture is situated at or near the membranous portion of the urethra. In making dilatation he uses the ordinary Thompson's sound, and when much resistance is encountered he stretches the stricture rapidly with Thompson's dilating blades. In strictures of the spongy portion of the urethra, when, from any cause, slow dilatation is undesirable, he practises divulsion by Holtz's method, and also internal urethrotomy, using for the latter purpose an ordinary Charrière's instrument. He prefers urethrotomy to divulsion, particularly in irritable and resilient strictures. Strictures at or near the meatus he divides. In practising the common process of gradual divulsion, when the stricture is tight and the opening small or tortuous, he usually employs whalebone bougies and Gouley's tunnelled catheters. The whalebones he makes himself, and they are very much finer than those to be bought in the shops, which, nine times out of ten, are not sufficiently flexible, and are therefore useless. Dr. Brinton insists with great emphasis upon the permeability of all strictures, with occasional exceptions, *i. e.*, those of traumatic origin. In difficult cases the passage of the whalebone is a work demanding great dexterity and gentleness, and, according to this surgeon's teachings, cannot be confidently anticipated if the patient has been practised upon the same day with instruments of larger diameter and with rounded points. When a stricture is suspected, or known to be a tight one, he invariably uses first the whalebone and over it the tunnelled catheter, deferring to a later stage of dilatation, instruments flexible, or soft, of increased size.

In the practice of the Philadelphia Hospital Dr. Brinton deprecates unnecessary interference with the urethra. The patients in this institution are paupers collected from the lowest ranks of life, with constitutions utterly broken down by exposure and debauch.

In his judgment the results obtained from operations upon such subjects are greatly inferior in point of success to those which attend like operations in private practice.

Progress of Medical Science.

COTO BARK.—Dr. Frommüller and Prof. Balz have been experimenting therapeutically with coto bark, a plant whose botanical position is not yet settled by naturalists. The powdered bark and a tincture made of one part bark to nine of alcohol were employed, the quantity of the latter used varying from 0.50 grms. to 25.00 grms. a day. Out of eighty-five cases of colliquative diarrhoea, fifty were cured, twenty-six were benefited, and nine showed no results after the administration of the drug. In many cases the diarrhoea returned within a few days, but a repetition of the treatment effected a final cure. As a rule, the success was directly proportional to the dose, the medicine failing when small doses were used. The profuse sweating of phthisis was also controlled by it to a very considerable degree. Of ninety-one observations recorded by Frommüller, it disappeared entirely in thirty-four, was diminished in twenty-six, and in eight was not affected. An alkaloid, termed *cotoïne*, is obtained from the bark by means of ether, which may be used instead of the substance itself, 0.15 grm. being equal to 5.00 grms. of the tincture. Another crystalline body, *paracotoïne*, is also obtained, and was used by Prof. Balz in cholera (See Vol. XIV., MEDICAL RECORD, p. 450), but owing to the small quantity of the drug in his possession he was unable to form a satisfactory opinion of its action; the results, however, were sufficiently favorable to recommend its further trial.—*Bulletin Général de Thérapeutique*, April, 1879.

TUBERCLES OF THE VAGINA AND CERVIX.—M. Cornil reported to the *Société des Hôpitaux* two interesting observations of this affection, one made by himself and the other by M. Rigal. The first case was a phthisical woman who presented a tumor of the lower part of the pelvic peritoneum, accompanied by uterine pains and leucorrhœa. Examination with the speculum revealed a superficial erosion of the cervix near the os, about half a centimetre in diameter, with sharply cut edges and a yellow base; on one side there were three small, slightly prominent, yellow points. The ulceration was touched with tinct. iodi., and rapid cicatrization set in; three weeks afterwards the patient quitted the hospital almost entirely well. An ulceration on the frenum of the tongue marked by the same yellow, tuberculous granulations, also cicatrized readily. In the second case, the autopsy showed a general miliary tuberculosis; the cervix and the vaginal walls presented a white granular plaque, not extending into the cavity of the cervix. M. Fournier in discussing the report admitted the rarity of tubercle of the cervix. He had on several occasions observed ulcers of the neck of the womb, the nature of which he could not determine; but the women were tuberculous, and he asked if these ulcerations might not be part of the disease. The history of tuberculosis of the cervix is as yet undeveloped, not being further advanced than that of tuberculosis of the tongue, before M. Trélat called attention to the yellow points. Among the scrofulous and phthisical, ulcerations are frequently observed which may be considered tuberculous. M. Cornil agreed with M. Fournier, but

doubted whether all the ulcerations observed in tuberculous patients could be attributed to tuberculosis.—*Bulletin Général de Thérapeutique*, April, 1879.

THE CLIMATE OF NICE AND ITS THERAPEUTIC ACTION.—M. Grellety does not consider the climate of Nice favorable for phthisical patients. The sudden change of temperature in the evening is undesirable; nor are the inhabitants found to be less subject to the disease than are those of other cities. A Lyons journal complains that the vital statistics are not accurate, most of the deaths from phthisis being placed to the account of other diseases, for fear of frightening away the visitors; in like manner the reports of dangerous zymotic diseases are pigeon-holed. According to M. Grellety the true object of Nice is the cure of gout. The gouty, no matter what their condition, all receive benefit, providing they live properly, renouncing their bad habits and hygienic errors, remain sober, and live in the open air, taking sufficient exercise to oxygenize their blood and restore to the sudoriferous glands their normal activity.—*Bulletin Général de Thérapeutique*, April, 1879.

SCLERODERMA: TREATMENT BY THE CONTINUED CURRENT.—Dr. Armaingaud states that he has obtained excellent results from a persistent use of the continued current in a severe case of scleroderma. The patient was a married woman, forty-one years of age; she had always enjoyed good health, but had never menstruated and had never been pregnant. The affection first showed itself in the neck, seven years before she was seen by Dr. Armaingaud, and had gradually extended to the face, arms, chest, breast, and abdomen, the lower limbs being unaffected. The tongue was thickened and very rigid, and its movements were greatly circumscribed. The face was entirely expressionless, and all movements of the affected parts were very difficult and incomplete. The skin had a board-like hardness; it was thickened as well as indurated, but presented none of the cicatricial spots usually met with in this disease. There was no atrophy, the affected parts having actually gained in volume and become more rounded; there was, however, nothing at all resembling cedema. The affected portions of the skin were slightly cyanosed, in consequence either of the impediment to the respiration offered by the rigidity of the thorax, or of a paralytic dilatation of the small cutaneous vessels. On the right arm, where the disease was most marked, the skin was very dry and parchment-like, and it was impossible to raise a fold or make a depression in it. When the finger-nail was drawn sharply across it, a white line was left, which did not become red until the following day. The eyeball could not be pressed back into the orbit, evidently in consequence of induration of the cellular tissue behind the ball. The optic papillæ were hyperæmic and the retinal veins dilated, but vision was emmetropic and accommodation normal. There was incomplete anaesthesia of all the affected parts, and particularly a very marked delay in the transmission of sensations. Even deep punctures in the arm were not felt until a quarter of an hour afterward; the pain then was less intense than it would be under normal conditions. Reflex movements were also retarded. The patient had a sensation of cold in the right arm, and the temperature there was 1° C. lower than in the left arm. She complained also of great sensitiveness to cold, but not of any decided pain. In the early stages of the disease she had suffered almost constantly from pruritus, which had been particularly severe at night.

From the favorable results of treatment in this case,

Dr. Armaingaud believes he is justified in drawing the following conclusions:

First.—That electrization with continued currents is indicated in the treatment of scleroderma, and may be expected to give favorable results, if not in all forms and degrees of the malady, at least in the form characterized by thickening and induration of the skin without cicatricial patches or ulcerations.

Second.—That the electric current acts not only on the portions of the skin covered by the poles, but also, through the medium of the spinal cord, on the parts not electrified.

Third.—That the favorable action of the constant current, and especially the generalization of its effects through the medium of the spinal cord, furnish additional support to the theory which makes of scleroderma a *trophoneurosis*, that is to say, a trophic affection dependent on an alteration in the nervous centres.—*Archives Gén. de Méd.*, June.

LIGATURE OF THE COMMON CAROTID FOR DENTAL HEMORRHAGE.—M. Hémard reports a case of ligature of the common carotid for hemorrhage following the extraction of a molar tooth. The usual remedies had been applied without success, and, with the consent of five of his confrères, M. Hémard performed the operation. The result was unsatisfactory, the hemorrhage not being controlled. The ligature came away on the twelfth day, after which ergot, and then sulphate of quinine were administered, and it was only after the exhibition of the latter drug, that the bleeding was checked. There was question here of the existence of the hemorrhagic diathesis, which would explain the difficulty encountered. M. Hémard preferred tying the common to the external carotid, on account of the difficulties presented by the latter operation. In the discussion which followed the presentation of this case to the *Société de Chirurgie*, M. Tillaux remarked that the operation was a very dangerous one, and should only be used as a last resort. He always preferred the actual cautery, and tamponing with charpie and perchloride of iron. The tampon should be kept in position by digital pressure, which should be maintained as long as possible, the friends of the patient being generally available for this purpose. With regard to the choice of the artery to be ligated, he thinks that, as the hemorrhage certainly comes from branches of the external carotid, that vessel should be selected. It is more difficult of access than the common carotid, but the dangers following the operation are less. M. Verneuil agreed with M. Tillaux in the choice of arteries, but he thinks that all these cases should first be treated with sulphate of quinine in doses of one or two grammes per day. He had seen dental hemorrhage in a medical student yield after the second gramme. There is question in these cases of the hemorrhagic diathesis, which demands internal treatment. M. Magitot advised the use of gutta-percha, which can be softened by heat and moulded into form, and the necessary pressure may be obtained against the superior maxillary. If the tooth cavity be first filled with chloroform, which dissolves the gutta-percha, the plug adheres intimately to the soft parts, and completely arrests the hemorrhage.—*Journal de Médecine et de Chirurgie*, June, 1879.

THE LARYNGOSCOPE.—It is recommended that a cloth moistened with glycerine be lightly passed over the laryngoscopic mirror before it is used. The water in the expired air is completely dissolved by the glycerine and many examinations can thus be made without any heating.—*Lancet*.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 23, 1879.

LITHOTRITY WITH EVACUATION OF THE FRAGMENTS.

II. THE OPERATION AND INSTRUMENTS.

THE instruments employed in this operation are a lithotrite, evacuating catheter, and washing-bottle. The lithotrite is introduced into the bladder, and employed during from ten to twenty minutes in catching and crushing the stone and its fragments. Then it is withdrawn, the evacuating catheter introduced, and all fragments small enough to pass through it washed out. This is repeated as often as may be necessary. It is seldom, if ever, desirable to use the lithotrite for more than fifteen minutes at a time. The work is done more expeditiously if the catheter is frequently employed to get the fragments out of the way, and the reason is a simple one, for the mass of small fragments, if not removed, protect the larger ones from being caught by the lithotrite. It frequently happens that, on the reintroduction of the lithotrite after washing, a large fragment is caught immediately, although only small ones were encountered at the end of the previous crushing. Bigelow makes use of longer intervals, and also of a much longer time to complete the operation than is usual with other operators; probably the two facts stand in the relation of cause and effect.

The lithotrite is handled in the usual manner; that is, the fragments are usually caught by depressing the floor of the bladder with the female jaw, so that they will roll down upon it, and then closing the male jaw upon them; or by opening the instrument widely, turning it upon its side, and sweeping the lower surface of the bladder from before backward with the male jaw. The washing is done by introducing the catheter, emptying the bladder more or less completely through it, and attaching the bulb, previously filled with warm water. Then, by alternately compressing and relaxing the bulb, the water is made to run into

and out of the bladder, and the fragments which are brought out by the return current sink immediately into a glass receptacle at the bottom of the bulb. During this manœuvre the end of the catheter is kept pressed against the floor of the bladder, and its eye turned in different directions. As soon as the fragments cease to come in any considerable numbers, the catheter is withdrawn and the lithotrite reintroduced.

It is evident, in view of this prolonged use of the lithotrite, that its jaws must be so constructed that they will not become impacted by the fragments, a danger that is especially great when the stone is phosphatic. Even in the old operation this same need was felt, for an impaction sufficient to separate the jaws so far as to render the withdrawal of the instrument difficult can be produced by one or two crushings. Many devices have been proposed to meet the want; among them a successful one by Reliquet some four or five years ago. Reliquet cut lateral grooves sloping backward across the face of the male jaw, and corresponding fenestræ in the back of the female jaw through which the ridges separating the grooves of the male jaw could pass; he thus supplied two routes through which the detritus lodged between the jaws could be forced, one backward through the grooves, the other forward through the fenestræ. In Prof. Bigelow's instrument the same principle of lateral grooves is used, the difference being that in Reliquet's the grooves have parallel sides, while in Bigelow's they are triangular and larger. In each case they run from the left edge of the face of the jaw to the right side, and from the right edge to the left side alternately. There is no fenestra in the female jaw of Bigelow's instrument, and it works perfectly well without it. Another point requiring especial attention is that the danger of catching the mucous membrane of the bladder between the jaws shall be reduced as much as possible. With this object Bigelow rounds the edge of the rim of the female jaw, makes its depression shallow, and lengthens and broadens the heel.

Sir Henry Thompson uses two small non-fenestrated lithotrites, crushing two or three times with one, withdrawing it loaded with débris, and using the other while the first is being cleaned. Dr. Keyes uses a lithotrite with a fenestra occupying the entire floor of the female jaw, and with the shaft of the male blade so lengthened that its jaw can be driven through this fenestra so as to free it completely. Pinching of the bladder is prevented by making the male jaw at least a millimetre narrower and shorter than the fenestra.

It is not necessary to reduce a stone to powder; it is sufficient to break it up into fragments small enough to pass through the evacuating tube. Bigelow's and Keyes's lithotrites both do this, and apparently there is little choice between them, the objections urged by each against the others being either of trifling im-

portance or not borne out by experience. Keyes's is the simpler and lighter instrument.

One of the most valuable modifications of the lithotrite was made by Sir Henry Thompson in giving it the cylindrical handle which so greatly facilitates manipulation, and in the arrangement for locking the two blades and throwing the screw into gear by lateral catches moved by a flat button on the upper side of the handle. Prof. Bigelow has substituted for the latter device an arrangement consisting of a cylindrical catch at the end of the handle moved by a turn of the wrist. He attaches considerable importance to this modification on account of its alleged greater facility of manipulation; but, even if this claim is well founded, a serious objection to the modification exists in the liability of the instrument to break at this point where the reaction of the force exerted through the screw upon the stone is received. This objection is not a theoretical one, for one of Bigelow's instruments broke at this point upon its first trial, the cylindrical catch being torn bodily away from the end of the handle. Thompson's catch cannot be broken in this manner, and it is certainly easy enough of manipulation to make greater ease dearly purchased at the expense of strength.

Bigelow's evacuating tubes are perfect. He has two models, a straight and a curved, and various sizes; the largest, we believe, about 11 mm. in diameter, No. 34 of the French scale. As he so well says: "The best size for the tube is the largest the urethra will admit." The principal modification in the construction of these tubes is in the size, shape, and location of the eye, which is close to the end and large enough to admit the largest fragment that will pass through the rest of the tube.

His evacuating bottle consists of an oval rubber bulb with a sort of large, strong, glass test-tube at one end, and a rubber tube, a foot or more in length, at the other. When in use, the rubber tube is attached to the evacuating catheter, and the bulb is held upright with the glass below. It works admirably, and the only objections to it are that even with the best care it is practically impossible to prevent the admission of air into it and wetting of the bed when coupling it to the catheter, and that the fragments have to pass through a foot of tubing before reaching the bulb. The latter is a small matter, and the former would be readily overlooked if Thompson's bottle did not work so much more satisfactorily in this respect. As the connection with the interior of the bladder is made at the highest part of the bulb, any air contained within the tube or catheter is forced at the first contraction into the bladder, and is there churned up with the water in a manner that probably somewhat impedes the escape of the fragments, and certainly prevents satisfactory auscultation through the abdominal walls.

Thompson's washing-bottle has the form and the

glass tube of Bigelow's, but it dispenses with the rubber tube, and is coupled directly to the catheter by means of a short brass tube provided with a stop-cock and entering the bulb at its lower end just above the glass tube. At the top of the bulb is another brass tube and stop-cock, through which the bulb can be conveniently filled with water. With this instrument the washing can be conducted with great facility while the patient lies in his bed, and without the escape of a drop of water while coupling. Any air that is present in it or the catheter rises at once to the top of the bulb, where it is entirely out of the way, and the fragments have to traverse only the length of the catheter and the short brass tube before falling into the glass receptacle. The rush of the water into and out of the bladder is so noiseless that the slightest click of a stone against the catheter can be heard, if the ear is placed upon the hypogastrium, and thus auscultation becomes a valuable adjunct of the searcher in determining the presence of a stone or any of its fragments.

ENGLISH MEDICAL STUDENTS AGAIN.

IN our notice of the remarkable article in the *Fortnightly Review* upon the medical men of England, we stated that we had seen no denial of the statements of Mr. Gilbert. Our attention was soon called to an answer written by Mr. Robert Brudenell Carter, an oculist of London, for the *Contemporary Review*. We regret that we have not been able to sooner notice Mr. Carter's reply. Mr. Gilbert is unknown to probably nearly all of our readers, but Mr. Carter will be remembered by many American medical men who made his acquaintance when he visited this country in 1876, and was a member of the Medical Congress held in Philadelphia, and the ophthalmological in New York. Many others know him as an interesting and instructive author, who holds an excellent professional position in London. Mr. Carter has also, we believe, held a responsible position on the staff of the *Times*, and may therefore, on all accounts, be said to be a fitting person to reply to Mr. Gilbert. Mr. Carter makes short work of many of the assertions of the *Fortnightly*. He simply denies them: "Mr. Gilbert's assertions are not only grossly inaccurate, but they are destitute even of the shadow of a foundation." This is the way many of the statements are disposed of: "Of 2,441 medical students in London in 1878, only ten are known to have come under the notice of the police, and these for no grave misdemeanor." It will be remembered that Mr. Gilbert put the number at 400.

Mr. Gilbert seems to be as unknown to the professors in the English medical schools as he is to us, for Mr. Carter's inquiries fail to find that the authorities of the larger schools had ever heard of him. Mr. Gilbert is said to have sent a proof of his article to one surgical teacher, to have it returned with a strong

condemnation and denial of his statements. The denials of the *Contemporary* as to the statements regarding the attention of patients, are not quite so comprehensive as those in respect to the moral character of the medical students.

From our own very limited experience in London hospitals, and from our reading on the subject, we are inclined to think that a good deal of the work by the medical men nominally in charge is perfunctory,—a result, as we think, of the vicious system which obtains in England as well as here, of crowding hospitals and infirmaries with patients who, on account of ability to pay, have no business there. These patients so fill the hospitals that medical men, did they give them all the necessary time, could do no private practice. Besides, in London as in New York, some men have so many hospital appointments that they do not always do justice to all their public work.

Mr. Gilbert's criticisms upon the system that makes a score of little medical schools in London, where there should be one or two large and well-organized ones, like those of Vienna or Paris, remain, however, unanswered, simply because it is impossible to praise such a mode of dividing up the energies of medical teachers, that with an equal arena would always, as they now do at times, rank with any in the world. Hospitals should everywhere, each one of them, in our opinion, be made use of to teach medical students and practitioners; but to make each one of them a medical school, with all the necessary appointments, is not only to fritter away the money of the beneficiaries, but also to seriously impair the influence of men who should have the advantage of large classes, and whom large classes, instead of the beggarly two score or so of such medical schools as Charing Cross, should hear. The character of English medical students may be said to be fully vindicated by Mr. Carter, if any vindication were needed; but the wisdom of the English system of medical instruction may still be doubted.

It remains a puzzle to us, that a respectable English journal like the *Fortnightly Review* could admit such false statements, and such incorrect statistics, as those of Mr. Gilbert's are proven to be. There seems to be some careless editing, even in the land that sometimes claims to furnish good taste for the civilized world. What with parliamentary obstructionists, the craze over disreputable but gifted actresses, and lying articles in respectable journals, we shall soon come to charge our English cousins with faults that they have sometimes attributed to us, and described as peculiar to our nationality.

BRITISH MEDICAL ASSOCIATION.—We give our readers a special report of the proceedings of the British Medical Association, for the first two days of its annual meeting. A report of the remaining part of the meeting did not reach us in time for insertion in the present number.

Reviews and Notices of Books.

LESSONS IN GYNÆCOLOGY. By WILLIAM GOODELL, A.M., M.D., Professor of Clinical Gynæcology in the University of Pennsylvania; Fellow of the American Gynæcological Society; Corresponding Fellow of the Obstetrical Society of London, etc. With eighty illustrations. Philadelphia, Pa.: D. G. Brinton, 115 South Seventh Street. 1879.

THIS book, containing nearly 380 pages, is not a treatise upon diseases of women, but mainly the outcome of clinical and didactic lectures to advanced students. It consists of a series of twenty-nine lessons. In the first we are told what ordinary working tools the beginner in gynæcological practice should purchase and carry in his satchel. To the list which he has given we believe a catheter and a uterine probe might with advantage be added. It may be that he intends to use the aluminum wire applicators as probes. The remarks made in this lesson regarding the use of the uterine sound, the propriety of having a female attendant in one's office, and keeping full notes of office cases, are valuable and practical.

In the second lesson the author introduces Diseases of the Urinary Apparatus, and first describes caruncle of the female urethra and its treatment. Removal by means of the actual cautery has proved most satisfactory to him, and it is a good method. If the thermor-galvano-cautery is not at hand, a heated wire may be used.

The third lesson is consumed with Observations on Vesical Disorders of Women. In this lesson Dr. Goodell brings out a fact which, if more generally known, would save many suffering women from the annoyance of wearing a pessary. Pessaries are good in their place, but to employ them to support a physiological antelexion is, to say the least, foreign to their designed use. Antelexion, the author believes, is the natural condition of the womb in virginity and sterility, and we believe this is an established fact, although not so generally recognized as it should be. With reference to dilatation of the urethra for the cure of chronic cystitis, Dr. Goodell says: "Candor compels me to mention one objection to this operation, and that is the possibility of permanent incontinence following it." The general candor of the book is here manifested, and we might close our review with the statement that its author is a safe medical adviser, for in none of his own cases has incontinence followed the operation. There are men, unfortunately, who, with such an invariable success in any gynæcological procedure, would be dangerous authors, unless their writings were for some obscure medical journal with limited and rapidly decreasing circulation.

Fistulæ of the Female Genital Organs is the title of the fourth lesson, which embraces the uro-genital, the recto-vaginal, and the perineo-vaginal. These, says the author, are, in a vast majority of cases, due to the disuse or tardy use of the obstetric forceps. In this and the chapter following, the usual operative procedures are described, and, in addition, that of Closure of the Vulva for Incurable Vesico-vaginal Fistula. Practical suggestions are met with at various points, and the text is as interesting as a story.

In Lessons VI. and VII. we find a brief, sensible, advanced, and rational discussion of the Causes, the Prevention, and the Cure of Laceration of the Female Perineum. The ounce of prevention being worth a

pound of cure is the key-note to the value of these lessons. He advises the immediate operation without qualification, but disarms the reviewer by saying that he is well aware of the sharp criticism which such advice will receive by some very good authorities. An expression of honest opinion is entitled to candid consideration, and must stand or fall according as it is sustained by or succumbs under practical application. In speaking of the operation he recommends that the bowels be kept locked up. This is the established rule, and yet, of late, some good men have been operating with success by keeping the bowels soluble from the beginning.

Local and Constitutional Treatment of Chronic Metritis and Endometritis forms the title of Lesson VIII., which embraces some common-sense suggestions regarding local applications to the cervical and uterine mucous membranes. Yet here we meet with a startling statement, namely, that "no matter how severe or how mild the treatment of uterine disorders, the percentage of accidents will be about the same, and that a very low one." This statement may answer for cautious men, but it is hardly in keeping with the author's usually prudent recommendations. We do not believe that it is a safe proposition to be given even to "advanced medical students," and, were we of the female sex, we certainly should prefer to have our uterus inspected from another point of view. The statement in the same lesson, that "when girls or unmarried women exhibit symptoms of uterine trouble" all measures should be tried before resorting to digital examination or to local treatment, sounds very much like the old obstetric advice to talk about the moon, the man in the moon if needs be, the manufacture of cheese, the weather, etc., when the first entrance to the lying-in chamber is made. Sick women go to the physician to get cured, and he as a conscientious practitioner of medicine has no right to place patients on the pedestal of false modesty and shoot pills at them in the dark. It is his business to find out at the very earliest hour practicable what the matter is with his patient, and, if she is a sensible woman and is approached in the spirit of honesty and desire to relieve her of her physical ailment, she will lay no obstacle in his way.

In Lessons IX. and X. the author speaks of the Versions and the Flexions of the Womb, and advocates mechanical support by means of pessaries. It seems to us that he does not sufficiently qualify his statements regarding the use of the uterine repositor, and leaves the student to infer that it is an instrument which can be employed essentially without fear or favor. True, it is in keeping with the position already noticed, that the uterus can be dealt with harshly without exhibiting marked retaliation; but we hesitate before indorsing the recommendation.

In Lesson XI. we notice a practical rule regarding the Use of Tents for Dilating the Cervical Canal. The Intra-uterine Stem-pessary receives a *guarded* recommendation in Lesson XII., and in Lesson XIII. the author passes to the study of Pessaries and Abdominal Supporters. In Lessons XIV. and XV. he discusses at some length the Etiology of Prolapse of the Womb, and adopts Dr. Isaac E. Taylor's view with reference to prolapse from hypertrophic elongation of the supra-vaginal portion of the cervix, namely, that it is the supra-glandular portion of the cervix—the isthmus—which is drawn out from the corpus, and that at the expense of its thickness. These lessons present a worthy *résumé* of the views and the objections thereto entertained regarding the etiology of this very common affection.

Laceration of the Cervix Uteri is the title of Lesson XVI., and nowhere, either in speaking of the frequency of the lesion or the operative interference for its cure, has the author even mentioned the name of Emmet, who was the first to describe the lesion, devise an operation for its cure, and to bring its pathological significance prominently before the profession. In a home author, this omission is entirely inexcusable. The description of the lesion and the method of treatment are substantially those with which the profession is already familiar.

Cancer of the Womb and Vegetations of the Endometrium are the titles of Lessons XVII. and XVIII. Lesson XIX. is devoted to Polypus of the Womb; and the study of Fibroid Tumors of the Womb occupies Lessons XX. and XXI. Passing Lesson XXII., in which Spaying for Fibroid Tumor of the Womb and for other Disorders of Menstrual Life is considered, we come to Lesson XXIII., which is upon Ovarian Cyst, its Diagnosis, its Treatment by Tapping, by Injections of Iodine, and by Drainage. Ovariectomy by Abdominal and by Vaginal Section is pleasantly discussed in Lessons XXIV. and XXV., and then the author passes to the subject of Nerve-tire and Womb-ills in Lesson XXVI. which consists of his Address before the American Gynecological Society at its Annual Meeting, held in Philadelphia, September, 1878. In Lesson XXVII. are given some practical and useful hints, both special and general, for the Prevention of Uterine Disorders. A subject is taken up in Lesson XXVIII. which, according to our recollection, has not been previously discussed in a medical book. It is the relation which faulty closet-accommodations bear to the diseases of women. We must congratulate the author upon the full, frank, and common-sense expressions which he has given us in this chapter, and we believe the practical benefit which would follow scrupulous attention to the advice therein given would amply reward every family in the world for obtaining a copy of the book. "Such closets as invite rather than repel, which give comfort and ready privacy to the evacuations of the body," will do much—very much—toward maintaining it in the greatest possible degree of health.

The book closes with a lesson on the sexual relations as causes of uterine disorders. The questions discussed are worthy of candid consideration, and the author has acquitted himself with grace.

The book, as a whole, is well published, and will be acceptable to the profession, notwithstanding the occasional taint of unqualified statements upon questions which, by general acknowledgment, are yet mooted.

EXAMINATION AND VERIFICATION OF WEIGHTS AND MEASURES OF PRECISION.—The College of Pharmacy of the City of New York has provided itself with special balances and standard sets of troy and decimal weights, to be used in the examination and verification of decimal, troy, or apothecaries', and all other kinds of weights. The college is ready to simply pronounce on the fact whether certain weights are correct or not, not to make incorrect weights correct. It is a matter of great importance that every dispensing pharmacist has weights which are correct. It is a notorious fact, and one of which pharmacists as well as physicians are aware, that many, if not most, of the cheaper weights sold in trade are unfit to be used as weights of precision by pharmacists or physicians.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Held in the City of Cork, Ireland, August 5th, 6th, 7th, and 8th, 1879.

(Special Report for THE MEDICAL RECORD.)

TUESDAY, AUGUST 5TH—FIRST DAY.

THE Association was called to order at 3 P.M. by DR. R. A. W. FALCONER, President, who was accompanied to the platform by DR. O'CONNOR, of Cork, the President-elect.

The minutes of the last meeting were read by the Secretary, MR. CROWKE, and approved.

DR. FALCONER then made brief reference to some of the more salient occurrences which had taken place in the Association during the past year, thanked its members for the kindness he had received during his year of office, and then introduced DR. O'CONNOR, the Senior Medical Professor of the Queen's College, and the President-elect of the Association.

HONORARY DEGREES IN MEDICINE.

DR. W. K. SULLIVAN, President of Queen's College, announced that the Senate of the Queen's University, Dublin, had conferred the honorary degree of M.D. on the outgoing and on the incoming Presidents.

RESOLUTION.

DR. WATERS offered the following resolution, accompanied by appropriate remarks:

Resolved, That the best thanks of the Association are due and are hereby given to Dr. R. A. W. Falconer, for the able and courteous manner in which he discharged the office of President during the past year.

DR. ALFRED CARPENTER, as President of the Council, seconded the resolution, and it was unanimously adopted amid great applause.

DISTINGUISHED FOREIGNERS PRESENT.

DR. CARPENTER then announced the following distinguished foreigners, who, although not members of the Association, would be its guests during the present meeting: Professor Charcot, Professor Ball, Dr. Gallard, Dr. Bonnafont, Dr. Sowerby, and Dr. Gueneau de Mussy, of Paris; Dr. Hirschberg, Dr. Weber Liel, and Dr. Madton, of Berlin; Dr. Giacinto Pacchioti, of Turin; Dr. Coodes, of Geneva; Dr. Lewis A. Sayre, President of the American Medical Association; Dr. G. M. Beard, Dr. E. Seguin, and Dr. Gray, of New York; Dr. Hodgins, of St. Louis; Dr. Yandell, of Louisville, Ky.; Dr. Lawrence Turnbull and Dr. Da Costa, of Philadelphia, Pa.; and Dr. A. B. Palmer, of the University of Michigan.

The distinguished guests were received with applause.

PRESIDENT'S ADDRESS.

DR. D. C. O'CONNOR then delivered the annual address, of which the following is a brief abstract: He first referred in suitable terms to his deep sense of gratitude for the honor conferred upon him by the Association in making him its presiding officer. Following the example of some of his predecessors, he pointed out circumstances of interest associated with the locality of the meeting, and spoke of what Spencer calls the "beautiful citie," with its admirable sanitary appointments and its æsthetic surround-

ings, its hospitals and its monasteries, its freedom from taxes, its School of Design, and its Musical Academy. Leaving the physical aspect of the city in which the Association assembled, he remarked that a brief survey of the composition of the Association, the brilliant genius of many of its members, would lead to a feeling of disappointment that greater results had not followed, which would place medical doctrines on a firm, lasting basis, rendering them free from doubt or controversy.

For the practical man—the every-day working physician—there was presented the important duty of collecting facts from which the man of genius would derive general principles, and thus assist in bridging over the large space which divided physiology and pathology from practical medicine. To make a good syllogism, with physiology and pathology as major and minor premises, and the treatment of disease as the conclusion, it remained still the difficulty to remove the disease, and to that all our energies were directed. Theories founded on imperfect generalization could not be adopted in medicine with as little injury as in other sciences. It was of no consequence to the student of optics whether the modulatory theory of light was true or false, or to the astronomer whether the Copernican system was capable of mathematical demonstration; but it was of great moment to the physician as to whether alcohol was a food or merely a stimulant—whether it was entirely or in part, or not at all, consumed in the body—and still contradictory statements of that kind had been propounded for the last twenty years in succession, each professedly founded on experiments. In that instance, as in many others, error passed by a species of exosmose to the general public, who adopted the views more agreeable to the senses, believing alcohol to be indispensable for the cure of all diseases, and for sustaining bodily health and mental energy. Happily, the timely declaration of 260 of the most eminent London physicians—which might be printed in letters of gold—placed the question on its true basis, stating that "while unable to abandon the use of alcohol in some diseases, no medical practitioner should prescribe it without a sense of grave responsibility, and with as much care as any powerful drug."

This and several other instances showed that, although practical men, they should bow to the declarations of science, and they should hesitate before accepting unfinished generalizations, which a fresh experiment or a newly ascertained fact might destroy. Even deductions derived from experiments on animals to test the effects of medicines on the living organisms, though of great value, must be received with a certain amount of caution—justified by the fact that certain deadly poisons for man were nutritive food to some animals; that zymotic diseases were not intercommunicable between men and animals, or rarely so; and that even age and idiosyncrasies modified the effects of medicines, so as to make it uncertain as to what might be the effects of a given medicine in one case by seeing its effects in another. Thus it could be seen that in the deliberations in the meetings of the sections there was a place for the purely practical as well as the scientific man. Their views test and are tested by each other. Rationalism enlightened empiricism, and enlightened empiricism was a check—a drag-chain on hasty theorizing—from which medicine had suffered so much injury through its whole history.

Whatever differences there might be in the expression of our views about treatment, or whatever disputes about theories, when we met disease in a com-

crete form in a fellow-man appealing to us for help, minor distinctions disappeared, and we found we had been differing in words, not in substance, and as happened in cities, from frequent consultations, there was a levelling of extreme views, and an unwritten practice of medicine became established. The chaff was scattered to the winds, and solid truth remained. "*Opinionem commenta delet dies; naturæ judicia confirmat.*"

Whatever drawback the physician might feel on the pride and satisfaction which ought to attend the practice of his profession, there was none from the study of hygiene and the enforcement of its principles on governments, corporations, and the general public. Here he was the more than disinterested servant of humanity, elevated far above the ordinary pursuits of professional life.

The address closed with the hope that when returning to their homes, all would be endowed with renewed devotion to the advancement of our great profession and the welfare of its members.

ANNUAL REPORT.

DR. ALFRED CARPENTER, President of the Council, read the annual report, which showed that the number of members admitted during the past year was 650; the number of deaths, 87; the number of resignations, 172; leaving the total number of members at 7,810.

The financial report showed a balance in favor of the Association of £768.

The report, together with the financial statement for the year ending December 31, 1878, was received, adopted, and ordered entered on the minutes.

The Association then adjourned, to meet on Wednesday, August 6th, at 11 A.M.

WEDNESDAY, AUGUST 6TH—SECOND DAY.

The Association was called to order at 11 A.M. by the President, Dr. O'Connor.

The only lady member of the Association, Mrs. Garret Anderson, was in attendance.

DR. ALFRED CARPENTER, President of the Council, announced the Committee of Council for the ensuing year, 1879-'80, as follows:

T. Clifford Allbutt, M.D., Leeds; J. T. Arlidge, M.D., Newcastle-under-Lyme; L. Borchardt, M.D., Manchester; J. B. Bradbury, M.D., Cambridge; G. W. Callender, Esq., F.R.S., London; B. Foster, M.D., Birmingham; E. Long Fox, M.D., Clifton; Arthur Jackson, Esq., Sheffield; C. E. Lyster, M.D., Liverpool; F. E. Manby, Esq., Wolverhampton; Frederick Mason, Esq., Bath; Edward Morris, M.D., Spalding; R. H. B. Nicholson, Esq., Hull; G. H. Philipson, M.D., Newcastle-on-Tyne; T. L. Rogers, M.D., Rainhill; E. H. Sieveking, M.D., London; Henry Stear, Esq., Saffron Walden; A. P. Steward, M.D., London; W. F. Wade, F.R.C.P., Birmingham; C. G. Wheelhouse, Esq., Leeds.

DR. CARPENTER then proposed that the annual meeting for the year 1880 be held at Cambridge, and that Professor Humphrey be appointed President.

The report and the proposition made by Dr. Carpenter were seconded by Dr. W. D. Husband, and then unanimously adopted.

ADDRESS ON MEDICINE.

DR. ALFRED HUDSON, Regius Professor of Physic in the University of Dublin, then read an address on

medicine, in which he reviewed the earlier history of medical progress, and dwelt at length on the work done by the celebrated physician Laennec. He alluded to the discovery of auscultation by Auenbrugger, and mentioned that the idea of the stethoscope was suggested to Laennec Gobsesing by some children playing in Paris—holding their ears at opposite ends of a beam of wood, and conveying from one to the other the sound produced by tapping on one end. Laennec was not slow in turning what he observed to practical account, and the result was the discovery of the stethoscope. He was afterwards enabled by means of this instrument to arrive at correct ideas with regard to the nature of the severest chest diseases, as well as disease of the heart. Dr. Hudson proceeded to describe in detail the views held by Laennec, and contrasted them with those of more modern observers, especially Niemeyer, whose views on pulmonary consumption were at variance with those of Laennec, and in which no one, however, could deny there was a great deal of truth. The address closed with a touching reference to the great loss recently sustained by the Association and by the profession in the death of Dr. Charles Murchison, whose life-work presented some analogies to that of Laennec. Like him, Murchison had left an imperishable memorial in his classical work on the continued fevers of Great Britain.

At the close of the address, DR. ANDREW CLARKE said, whether he looked upon the plan of the address or the manner of its execution; whether he regarded the felicities of its language or its fertility of illustration; its philosophy or discriminative minuteness; its unpretending wisdom, and its most charming simplicity—he saw equal grounds for congratulating both the speaker and the Association, and offered the following resolution:

Resolved, "That the thanks of this Association are due and are hereby given to Dr. Hudson, for his able and interesting address on medicine."

The resolution was seconded by Dr. Ringrose Atkins, sustained by the President in complimentary remarks, and unanimously adopted by the Association.

PRESENTATION TO THE LIBRARY OF QUEEN'S COLLEGE.

DR. T. GALLARD, of Paris, presented to the Association a number of his works, which were subsequently presented to the library of Queen's College.

The Association then adjourned, to meet on Thursday, August 7th, at 11 A.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 25, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

REPORT FROM THE MICROSCOPICAL COMMITTEE.

DR. W. M. CARPENTER presented the following report from the Microscopical Committee:

The larynx presented by Dr. Beverley Robinson, at a stated meeting held May 14, 1879, was found to contain the normal structures of the organ and a moderate infiltration of lymphoid cells. It did not contain miliary tubercles. The specimen of spina bifida presented by Dr. J. Lewis Smith, at the same stated meeting, was referred by the Committee to Dr. R. W. Amidon, who reported that it had decayed to

such an extent as to render microscopical examination impossible.

[Signed]

W. M. CARPENTER,
T. E. SATTERTHWAITHE.

PERFORATING ULCER OF THE ANTERIOR WALL OF THE
STOMACH, NEAR THE PYLORUS.

DR. F. V. WHITE presented a perforating ulcer of the stomach, with the following history:

M. D., a female, aged twenty-five, native of Ireland; twenty years resident in this country; her occupation, hair-dresser; of healthy ancestry. She had excellent health to her thirteenth year, when she had intermittent fever. Her health was variable, being chlorotic to her sixteenth year, when her catamenia were established. Her appetite was peculiar since the fever, particularly desiring sweets, cloves, and black pepper, using the latter even in her tea. When she was eighteen years old she had an attack of peritonitis, I should infer from the history. She had periods of indigestion, particularly in the spring and fall; she had a very severe attack last summer. Her teeth commenced to decay in her fifteenth year; four years ago what remained of her teeth were extracted, and were replaced by an artificial set.

I was summoned to her January 16th last (her family physician was sick), about 7 o'clock A.M. I found her in a semi-recumbent position on her right side, anxious expression of countenance, pale, cold perspiration, gasping, catching respiration, complaining of excruciating pain about the region of the diaphragm reflected to the clavicles. She was almost pulseless. On examination of the chest, discovered nothing acute; on palpation of the abdomen, no tenderness.

On the day previous to her attack she attended the funeral of an intimate friend, but did not go to the grave; in the evening she took a bath, washing her hair, and drying it before the parlor grate-fire. I was also informed she was in unusually exuberant spirits that evening. About midnight she was taken with excruciating pain in the epigastric region, and vomited. As she had had attacks previously, and, after using domestic remedies, was relieved, the relatives were not very anxious. On inquiring as to the character of the vomiting, was told there was no blood; that she had never vomited blood in her previous attacks.

My diagnosis was diaphragmatic pleurisy, based upon the following facts: the very inclement weather, snowing and cold; her depression on account of the fatal illness of her friend; the indiscretion of the bath, and washing her hair and drying it before the open grate-fire, exposing herself to a draught that cold evening. My treatment consisted in means to relieve the collapse, vomiting, and pain.

On my visit about 10 A.M. I found her markedly improved, vomiting stopped, pain somewhat easier. Continued the treatment, with the request, if fever set in, to stop it.

On my visit, 2 P.M., found her in a lower collapse than on my first visit. On palpation of the abdomen, found tenderness in the lower portion of the abdomen. I remained with her about two hours, treating her case as indicated. Being called to an urgent case of threatened pneumonia, I left her in a more comfortable condition, about 4 P.M. On my return, about 5 P.M., I was told she suddenly died about 4½ o'clock.

My opinion was that acute pleurisy, attacking her in so vital a situation in her depressed condition, was the cause of her death.

After considerable persuasion, an autopsy was per-

mitted, which was made about twenty-two hours after death.

On opening the abdominal cavity there was found general peritonitis, old and recent; there were old adhesions of the liver to the diaphragm; the posterior wall of the stomach was adherent to its surroundings; the stomach was found with an anterior perforation towards the pylorus; the usual contents and conditions, the result of the perforation, were found in the abdominal cavity.

The heart was normal; old pleuritic adhesions were found about the upper lobes of both lungs, especially the right; there was rather more than the usual fluid in the pleural cavity; no marked indication otherwise of pleurisy at the base of the lungs.

In the above history the following might be worthy of consideration: what effect the intermittent fever had, also the amenorrhœa in the causation of ulcer of the stomach.

An apology might be offered for my error in diagnosis by the obscurity surrounding these cases, as may be found without consulting further than the transactions of this Society, 1st vol., in the part devoted to perforating ulcers of the stomach."

(To be continued.)

Correspondence.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS:

REPLY TO DR. M. PUTNAM-JACOBI.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Any one who criticises in print the remarks of another should, while doing it, give an accurate statement of those remarks, or, at least, of the evident purport of them. By none of my remarks, at a recent meeting* of the Pathological Society upon sudden pulmonary œdema, did I suggest that it was an accident which might occur *during* the operation of thoracentesis.

What I *did* say was as follows: "From the foregoing history and the morbid lesions revealed at the autopsy, I wish to draw an analogy between this case of ambulatory pneumonic consolidation with chronic pleurisy of the right lung, followed by very rapid and intense generalized œdema and congestion of the entire *left* lung, and resulting in a speedy death, and those instances of sudden œdema of a relatively healthy lung which occasion death *after* the operation of thoracentesis for large fluid effusions of the pleura." And, farther on, I said "that I presented the specimen chiefly because of its interest in one point of view: it enabled us to draw an analogy between the cases of sudden death *after* thoracentesis from pleurisy, and sudden death from œdema of healthy lung in a case of pneumonia."

Dr. Putnam-Jacobi, continuing her letter, writes: "It seems to me unnecessary to suggest *possible* causes for sudden death under these circumstances, when the cause is so obvious." In the first place, sudden œdema of a lung, after the operation of thoracentesis, is not a mere *possible* cause of sudden death. It is an actual

* See minutes of May 14th.

and efficient cause of sudden death; and to prove this, I can but refer my able interlocutor to my paper entitled "On Some Conditions, Physical and Rational, in Effusions of the Pleura, etc.,"* where the following statements can be found: "In a case reported by Dr. Ernest Legendre (*Gas. des Hôpitaux*, 1875), fifteen days after the beginning of an attack of acute pleurisy, thoracentesis was performed and about three litres of fluid withdrawn. In a very short time after the operation dyspnoea recurred, copious secretion into the air-passages took place, cyanosis appeared, and death resulted from asphyxia in a few moments. The asphyxic state was occasioned here, no doubt, by rapid and overwhelming bronchial effusion. . . . Mr. Tenneson (*Union Médicale*, Feb. 22, 1876) relates a very similar case to that of Legendre's, where dangerous asphyxia took place after twenty ounces of liquid had been removed. These facts are corroborated by others mentioned by Behier, Liouville, and Terrillon (*Thèse de Paris*, 1878), all of which prove that death has occurred from the pulmonary congestion and oedema induced by too rapidly and thoroughly evacuating the thoracic cavity."

The obvious cause, reached by somewhat intricate reasoning, Dr. Putnam-Jacobi presents to her readers in the following words, textually cited: "When the operation has freed the thorax from the effusion which may have held one of its sides motionless, and the chest-walls begin to expand, they draw not only on the compressed lung, but on the heart, tending by 'negative pressure' to arrest its action in diastole. This tendency is not resisted as effectively as in physiological conditions, because by morbid habit the physiological reserve of force in the excito-motor ganglia has been reduced. If the reduction has fallen below a certain minimum, or if the cardiac muscle is degenerated, or if the expansion of the liberated chest-walls be sudden, syncope, or diastolic arrest of the heart is almost inevitable. It is again only a question of degree whether such arrest shall prove permanent, i. e., fatal."

For the solution of "the obvious cause" to be supplied with three successive "ifs," appears to me "unnecessary." Moreover, there is nothing at all new in the conclusion arrived at by Dr. Putnam-Jacobi, as will be remarked, not merely by a reference to a "case in the *Am. Jour. Med. Sciences* for April, 1879," but also by reading the following lines which are cited from my own paper, previously mentioned: "There is a numerous class of cases in which a suddenly fatal termination, probably due to syncope, has occurred. Such an one is that of Legroux, where the patient, on admission into the hospital, presented an immense effusion. The thoracic cavity was completely evacuated by the use of the aspirator, and three-fourths of an hour afterward the patient died. . . ."

"Again, the mere pain of the puncture has been considered sufficient to arrest the heart-beats by reflex action. The case reported by Besnier is one in point. These lines are quoted from his article previously published."

Here the liquid was slowly withdrawn by a trocar No. 2, of Mathieu's apparatus, and with almost an excess of every precaution. But a few moments elapsed after the puncture, and only ten ounces of fluid had penetrated the receiving-bottle, when suddenly the patient became frightfully pale, and was found to be without movement and pulseless. . . . it soon became evident the woman was dead. In this and analogous instances I can only admit the sufficiency

of the apparent "cause of death, where there is great failure of heart-power. This may exist, as we know, even though the heart is not in its exterior aspect seriously affected, or, at worst, is somewhat enlarged and flaccid. Such cases are frequently encountered in other depressing diseases, owing to loss of nerve-force generated in the *cardiac motor centres*, rather than to the lack of tonicity in the muscular fibres," etc., etc.

Yours respectfully,

BEVERLEY ROBINSON, M.D.

NEW YORK, August 11, 1879.

NOTE ON THE CAUSE OF SUDDEN DEATH DURING THE OPERATION OF THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—We have read the "Note on the Cause of Sudden Death during the Operation of Thoracentesis," by M. Putnam-Jacobi, M.D., in the *RECORD* of August 9, 1879, with much interest. It seems to us that the doctor has hit rather wide of the mark.

The effect of expanding the chest during inspiration is to create a partial vacuum in all its cavities. In the bronchial tubes and air-vesicles the air is rarefied. In the heart and blood-vessels the gaseous constituents of the blood, relieved of pressure, expand. The diminished pressure in the bronchi causes a rushing in of air from the outside through the larynx until the atmospheric pressure is brought to an equilibrium. In the heart this expansion of gases causes probably a slight increase in volume of the cardiac contents, and therefore a very slight increase of opposition to cardiac contraction, which lasts till all vacuum is filled by the rushing in of air (see above) and of blood (see below). The atmospheric pressure, acting on the veins outside of the chest, presses the blood in them forward to distend the intra-thoracic veins and the right cavities of the heart, in which a partial vacuum has been caused ("aspiratory force" so called). When we aspirate a chestful of fluid we cause, in the pleural cavity, a partial vacuum. This the outside atmospheric pressure seeks to fill by the air rushing in through the larynx into the collapsed lung, by pressing forward the blood from the peripheral veins into the venæ cavae and right heart, and by pressing in the chest-wall. The chest-wall does not expand as a result of removing fluid rapidly by aspiration any more than it does as a result of removing fluid slowly by absorption. The two former processes are just what we have in normal respiration.

Suppose now that the aspiration is conducted too rapidly. The lung, long compressed by fluid and bound down by adhesions, expands imperfectly. The chest-wall is capable of collapsing only to a limited extent. The excess of the compensation falls obviously to the third factor. The venous blood is forced in great quantity into the right heart. Overdistention and paralysis of the right heart result. The patient suddenly expires.

This seems to us a sufficient and common-sense explanation of sudden death occurring during aspiration. It is hardly possible that the left heart has less work to do when one pleural cavity is filled with fluid. The right certainly has more, as it has to drive the greater bulk of the blood through a single lung, i. e., it has to propel the same amount of blood as in health, but through a narrower channel. On the other

hand, the left heart has possibly to contend against torsion of the aorta caused by cardiac displacement by the fluid. The sound side of the chest compensates by increased exertion for its disabled companion. So it seems to us that, so long as the patient is not cyanotic, we have no reason to suppose that the "negative pressure" is any less in a patient afflicted with pleuritic effusion than in a sound chest. In other words, the heart *as a whole* has probably more work to do in a patient such as we are considering than in a sound man. If it gives out at a trying moment, it is the result of overwork, *not* of lazy and improvident habits formed by ganglion cells during a period of diminished activity and suddenly called upon for a reserve force which they have foolishly neglected to provide. Yours respectfully,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH STREET, Aug. 11, 1879.

CHOLERA IN JAPAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The cholera epidemic which has been raging for some time past in the southern provinces of this empire shows, by last accounts, but little signs of abatement.

The cities of Osaka and Hiogo are suffering most severely, the former reporting for June 4,174 cases and 3,115 deaths.

By a seven-days' detention system of quarantine, both by sea and land, the disease has been held back from the northern provinces and the capital up to date.

In addition to this, energetic sanitary measures are being adopted by all the municipalities of the northern towns in hopes of being able to retard, if not entirely escape, the scourge.

Two facts favor this possibility, viz.:

1. That a mountain range with only three passes separates this part of the country from the infected districts.
2. That a single line of steamers is the only regular means of communication between the cities referred to and this port and Tokio.

D. B. SIMMONS, M.D.,

Health Officer for the Japanese Government for the Ports of Yokohama and Tokio.

YOKOHAMA, JAPAN, July 15, 1879.

JAPANESE PAPER ICE-BAG.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The accompanying sample of *paper ice-bag* I regard not only as a curiosity in its way, but find it very useful. I have employed no other in my hospital for some year or two for applying ice as a therapeutic agent. It is good for several days' constant use, hence sufficiently long for any ordinary case in which it may be required, when its cheapness allows of its being thrown away. As far as I know it is a purely Japanese invention, and adds one more to the almost innumerable uses to which they put paper. I may say they also make water-beds, cushions, etc., in the same manner.



Respectfully yours,

D. B. SIMMONS, M.D.,
Surgeon to Kerr Hospital.

YOKOHAMA, JAPAN.

New Instruments.

A NEW FORM OF PNEUMATIC APPARATUS—OF CONTINUOUS ACTION AND GREAT PORTABILITY.

THE treatment of certain diseases of the respiratory and pulmonary organs with rarefied and condensed air has become firmly established. If it has not been resorted to as frequently as successes attained by it would appear to warrant, this is due partly to inefficiency of many apparatuses devised for the production of rarefied and condensed air, and partly to difficulty in their manipulation. The requirements which an apparatus for the purpose named should fill, are facility of manipulation and provision for the steady maintenance of about the desired degree of rarefaction or condensation.

Until recently the well-known Waldenburg's apparatus has filled these indications better than any other; yet the manipulation of its weights is very troublesome, and sufficient to deter many from its use. Besides, the objection is made against it that it consists of so many parts loosely united as to make it generally lacking in solidity.

To evade all these objections a new apparatus has been devised for the production of rarefied and condensed air, which fairly has the prospect of coming into general use. The annexed figure (1) illustrates it;



FIG. 1.

and one of its principal features, the crank, can readily be perceived, by the mere turning of which, rarefied or condensed air can be produced. The rudimentary ideas for the construction of this apparatus have been given by Professors Mayr and Geigel, of Würzburg, and their realization has been afforded by Dr. Hess.

The apparatus is constructed upon the principle of the "Bucket-wheel Blower" (Schöpfradgebläse), of which the diagrams, Figs. 2 and 3, will give an idea. M, Mr, M, is to illustrate an enclosure similar in shape to the glass covers over parlor clocks, made of strong sheet iron. This enclosure communicates with the outside air by the opening and outlet Mr, and contains perpendicularly the "bucket-wheel," shown in

the diagram by the double circle, divided into twelve equal parts. The horizontal axis of the bucket-wheel rests in the centre of the enclosure and projects on the outside, where a cog-wheel and crank can be applied, and the wheel thereby easily revolved. Axle, spokes, cog-wheel, and crank are not shown in the diagrams 2 and 3.

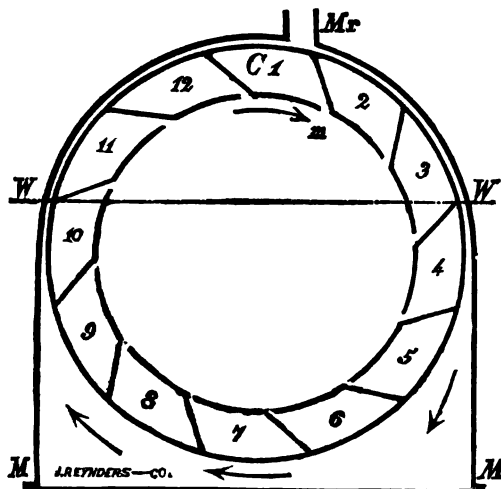


FIG. 2.

The bucket-wheel, which is also made of sheet iron, has on its inner concave side (towards the middle) empty buckets (Fig. 2, C 1, 2, 3, . . . 12), which, imagining that it were revolved to the right, have at their front surfaces, towards the middle, small slit-shaped openings, the opening on Z being near *m* on Figure 2. Through these openings each bucket communicates with the space within the enclosure. Now if the enclosure is filled through the opening *Mr* with water to the height of *W W*, and the bucket-wheel revolved to the right, the air-filled buckets 3, 2, 1, 12, etc., will descend below its level. The air contained in every one of these buckets will be somewhat compressed by the water entering as much as possible into the bucket openings, carried further by progressing rotation. The bucket-mouth is directed to the top, when the air will escape in the form of bubbles rising through the water. It can be readily understood from Fig. 2 that the escape of air from the buckets goes on while the buckets, during rotation, take the positions which the buckets 5, 6, 7, 8 are shown to have. In the same degree these buckets will be filled with water, which they carry until their mouths reach the position of bucket 11. Bucket 2 will already be filled entirely with air, and when reaching the position of bucket 3, this entire process repeats itself.

Suppose, now, that a bell is inserted inside of the bucket-wheel, resting in the flat, cylindrical enclosure. This bell has two openings, a wider, lower one (*G G*, in Fig. 3), reaching considerably under the water level, and an upper, narrow one, passing through the enclosure, and thereby in communication with the outside air. Self-evidently the upper part of the bell, its outlet, must be of such a form that the bucket-wheel can be rotated without obstruction and without interfering with space within the bell.

It can be readily seen that the lower margin of the bell is well over the lowermost situated buckets. If the bucket-wheel is turned to the right, the buckets filled with air, 3, 2, 1, etc., will pass the lower mouth of the bell, *G G*, and allow the air to escape, which

will then enter the bell. By closing the upper opening *Gr* the air will accumulate more and more in the bell space; thereby the level of the water in the bell-space is lowered, and is raised in the enclosure by the water passing through the opening, *G G*.

In this manner the increasing quantity of air in the bell-space will gradually assume its water level down

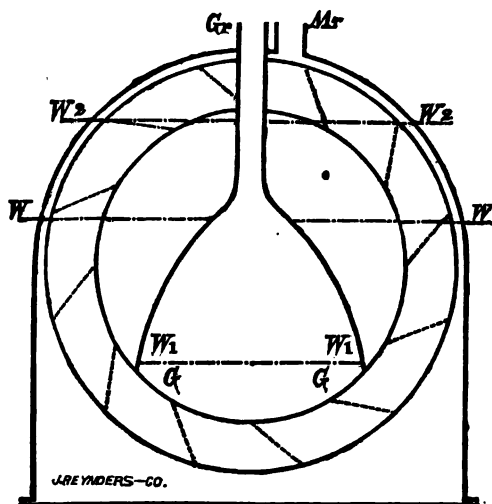


FIG. 3.

to *W1 W1*, while at the same time the water level in the enclosure will rise to *W2 W2*.

The difference between these two water levels indicates the atmospheric pressure bearing upon the air in the bell space, or the degree of tension produced by a water column whose height is equal to it.

Upon opening the outlet *Gr*, the air will rush out. However, as a sufficient velocity of rotation of the bucket-wheel will constantly supply the bell-space with as much air as escapes, the amount of atmospheric pressure in the bell, even when its opening is not closed, can be steadily maintained to any degree desired.

(1). In this condition the apparatus is arranged for inhalation of condensed air; the rotating of the crank causes accumulation or condensation of air in the bell space, which may be conducted into the lungs through a tube, *Gr*, ending in a mask.

If, on the other hand, the opening of the enclosure *Mr* is closed, while the opening of the bell-space *Gr* remains open, and the bucket-wheel rotated in the same direction as before, air will be drawn from the enclosure and brought into the bell-space. This will produce rarefaction of air in the enclosure, following which the water level will rise in the enclosure while it sinks in the bell-space. As in case of condensation of air in the bell-space, the rarefaction in the enclosure increases in proportion to difference in height of the water levels. After opening *Mr*, the rarefaction may be constantly maintained if the velocity of rotation of the bucket-wheel, or the transport of air out of the enclosure, is analogous to the quantity of air entering through *Mr*.

(2). In this condition the apparatus is adapted for exhaling into the enclosure, by connecting it with the lungs by the mask, tubing, and outlet *Mr*. From this elementary description of the apparatus one can conclude that its mechanical productiveness or efficiency is dependent upon its size.

The apparatus is provided with an improved man-

ometer, registering by red-colored water, which is more readily visible and more sensitive than mercury. Masks and stopcocks are of an improved pattern on the Waldenburg apparatus.

The latter and above described new form of pneumatic apparatus are manufactured by Messrs. J. Reynders & Co., of No. 303 Fourth Avenue, New York.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 10 to August 16, 1879.

FORWOOD, W. H., Major and Surgeon, McPherson Barracks, Atlanta, Ga. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 128, Dept. of South, August 13, 1879.

HORTON, S. M., Major and Surgeon. Granted leave of absence for two months. S. O. 42, Div. of the Atlantic, August 12, 1879.

GIRARD, J. B., Capt. and Asst. Surgeon, Ft. Davis, Texas. Granted leave of absence for one month on surgeon's certificate of disability, with permission to leave limits of the Department. S. O. 168, Dept. of Texas, August 8, 1879.

KIMBALL, J. C., Capt. and Asst. Surgeon. Granted leave of absence for fifteen days. S. O. 40, Div. of the Atlantic, August 9, 1879.

MOFFATT, P., Capt. and Asst. Surgeon. Assigned to duty at the new post in the vicinity of Lake Chelan, W. T., to which post he will proceed at end of current month. S. O. 96, Dept. of the Columbia, July 28, 1879.

BANISTER, J. M., 1st Lieutenant and Asst. Surgeon. Having reported in person, ordered to report to C. O., Ft. Leavenworth, Kans., for temporary duty. S. O. 151, Dept. of the Missouri, August 7, 1879.

CARTER, W. F., 1st Lieut. and Asst. Surgeon, now at San Antonio, Texas. To proceed to Ft. Concho, Texas, and report to the C. O., District of the Pecos, for duty in that District. S. O. 164, Dept. of Texas, August 4, 1879.

FRTZGERALD, J. A., Capt. and Asst. Surgeon, died at Columbia, Pa., August 11, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious disease reported to the Sanitary Bureau, Health Department, for the two weeks ending August 16, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 9, 1879.	0	7	40	2	25	17	1	0
Aug. 16, 1879.	10	18	37	4	28	14	5	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from Aug. 13th to 18th inclusive was 158, and the number of deaths that occurred was 52. The total number of cases for this year to Aug. 19th is 575, and the total number of deaths 158.

During the past week two new cases have been sent to the Quarantine Hospital in this port [New York].

MEDICAL DEPARTMENT OF YALE COLLEGE.—In accordance with a long-cherished plan, the Medical Department of Yale College announces a graded course of instruction extending over three years. Preliminary examinations are required for admission, except from those who present a degree in Letters or Science, or have passed an examination for admission to Yale College or some similar institution, and are conducted in writing. Examinations, chiefly in writing, will be held at the end of each year to determine the standing of students with reference to their advancement to the studies of the succeeding year.

AMPHORIC RESPIRATION.—Dr. M. L. James, President of the Richmond Academy of Medicine, expresses the opinion that adhesion of the pleural surface of a cavity with the chest-wall is the usual condition by which amphoric respiration is produced. Authorities recognize the existence of a large cavity with firm walls as the occasion of amphoric respiration; but he has nowhere seen any reference to pleural adhesions as the particular condition by which those walls are made thus firm.—*Southern Clinic*.

THE ARMY MEDICAL SERVICE of Great Britain appears to be in a very unsatisfactory condition. During a debate on the subject at a recent session of Parliament it was acknowledged that there were more vacancies than applicants for positions in the service, and that it was indeed the only branch of the public service in which such a state of affairs existed. Physicians do not care to become army surgeons. Such a state of affairs is remarkably different from that in our own country.

THE EFFECT OF SMOKING UPON THE TEETH.—In a paper read by Mr. Hepburn before the Odontological Society of Great Britain it was claimed that smoking was beneficial to the teeth. The alkalinity of the smoke neutralizes any acid secretion there may be in the mouth, and the antiseptic property of the nicotine tends to arrest any putrefactive change in carious cavities. Tobacco will only discolor teeth when there is a crack in or loss of the enamel.—*British Medical Journal*.

BOOKS RECEIVED.

PHYSIOLOGICAL THERAPEUTICS: a New Theory, by Thomas W. Poole, M.D., M.C.P.S. Ontario, Toronto: The Toronto News Company.

L'ANNÉE MÉDICALE, 1878. Le Dr. Bourneville, Rédacteur-en-Chef du Progrès Médical, 6 Rue des Écoles, Paris, France. E. Plon et Cie., Imprimeurs-Éditeurs, Rue Garancière, 10. 1879.

BIBLIOTHECA DERMATOLOGICA, by Henry G. Piffard, M.D., Prof. Dermatology, University of the City of New York. New York: Bradstreet Press, 279 Broadway. 1879.

THIRTY-SIXTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y., for the year 1878. Albany: Charles Van Benthuyssen & Sons 1879.

MANUALS OF HEALTH. On Health and Occupation, by B. W. Richardson, M.D., F.R.S., etc. New York: Pott, Young & Co., Cooper Union. 1879.

THE SUMMER AND ITS DISEASES [Health Primer], by James C. Wilson, M.D. Philadelphia: Lindsay & Blakiston. 1879.

• Original Lectures.

VAGINO-CERVIPLASTY;

OR, SHORTENING OF THE CERVIX UTERI BY TISSUE-SLIDING.

A LECTURE DELIVERED

By MONTROSE A. Pallen, A.M., M.D.,

PROFESSOR OF GYNECOLOGY AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK, APRIL 24, 1879.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—By reference to the *Records of the Clinic* for April 3d, we read about the patient presented to you to-day, as follows:

"*Mrs. Cummings; married; æt. 26; Ireland.* She has always menstruated regularly, and has no pain, except on the first day. No menorrhagia, no leucorrhœa; nor is there any bladder or rectal trouble. The pelvic contents are remarkably free from inflammatory products, if we are to judge from her subjective history. She has been married three years, but has borne no children, and she comes here to discover if there is any cause and remedy for her dyspareunia and sterility.

"*Digital examination* reveals the cervix uteri very much elongated and flattened from before backward. *Conjoined manipulation* develops a well-defined ante-flexion of the cervix, and a moderate degree of corporeal ante-curvature likewise, evidently produced by pressure of the superincumbent viscera.

"By means of the *speculum investigation*, actual measurement of the intra-vaginal cervix displays a length of 1½ inches posteriorly, and 1¼ inches anteriorly. The sound penetrates to the fundus uteri, and marks 2½ inches of depth.

"*Diagnosis.*—Prof. Pallen regards this condition as one of normal uterine development as to length, both in body and neck, but defines the lesion to be an *apparent (not real) elongation of the neck of the womb, in consequence of faulty implantation of the vagina.*

"*Treatment.*—Surgical procedure is advised, whereby the neck of the womb can be relatively shortened by sliding the vaginal mucous membrane downward, and lifting the neck into an artificial sheath.

"*April 10th.*—Patient was placed under ether and brought into the amphitheatre. Vagino-cervioplasty was made by stripping the upper portion of the mucous membrane from the circumference of the cervix to the width of about six-sevenths of an inch anteriorly and five-sevenths posteriorly, together with a dissection of the mucous membrane above, from around the junction of the body and neck, without ablating it. The neck was then slid into the new socket or sheath thus made, and the margins united by nine silk sutures. There was considerable hemorrhage, as a good-sized artery (possibly the abnormally distributed circular) was severed in the denudation. The bleeding was, however, checked by torsion at either extremity of the vessel. Prof. Pallen's modification of the Sims speculum was used, because it gave greater space."

After the operation the patient was removed to her home in a carriage, and Drs. Van Ramdohr and Norris watched her carefully. It is useless to follow the daily history of the case, inasmuch as the wound made a speedy union, and again our patient presents herself fourteen days from the date of the operation. A speculum examination reveals the cervix uteri lifted from its

former resting-place upon the perineum, and its flattened appearance is gone. The ante-flexure of the body is likewise less, because the uterus is no longer squeezed between the abdominal contents above and the perineum below. The sound penetrates with less bending, and marks a depth of 2½ inches. The sexual organs are nearly normal as far as place is concerned, and we can safely anticipate a painless, and possibly a fruitful coition in the future. With such a cervix as this patient had prior to the operation, almost protruding from the vulva, conception was not to be considered, nor did she ever submit to the marital congress except to frequently feel distress, which occasionally amounted to actual pain.

This is the fifth case of the kind upon which I have operated. The first three operations were reported to the *Obstetrical Society* in October, 1874, and subsequently published in the *Journal of Obstetrics*, February, 1875. The fourth case was operated upon in February, 1878. Without entering into the histories of these cases, let me call your attention to certain facts in embryology, and the much-neglected study of teratology, viz., the science and philosophy of monstrosities. This preliminary study of embryological and teratological facts will give you an idea why this operation was conceived, and you will be pleased to learn how much every department of surgery and applied pathology can be more than substantially benefited by a careful exploration of the development and growth of organs.

An arrest of embryonic development, a fixation or stoppage of a perfectly normal transitory state, or a failure and arrest of the second pubertic development, may and does result in a permanent anomaly materially affecting the future of the generative organs. If the converse of this take place, it is equally productive of harm, because an excessive developmental impetus results in increased growth, and determines an increase in one or more of the organs designed for copulation, generation, or parturition. If these propositions were not true, how then could we explain the presence of a double uterus and vagina, or a double vagina and single uterus, or the absence of a vagina with a rudimentary uterus and well-developed ovaries, and many other conditions indicative of arrested or excessive embryogenic impetus. No condition of embryogenic life persists after birth unless there has been arrest of some transitory state, as in this patient with apparent elongated cervix; she has grown to womanhood with certain arrested formative actions of the hollowing out of a membranous spur, given off from the Wolffian bodies, somewhere about the eighth or ninth week of gestation.

So positive are the interconnections, anatomical and physiological, of the vagina, bladder, rectum, uterus, oviducts and ovaries, that the harmony of their correlations cannot be disturbed without portentous trouble. Thus, too small a vagina, too large a bladder, too low a uterus, or too contracted a vulva, may develop dyspareunia (painful coition); an infantile uterus, or the persistence of prepubertic ante-flexion, or too narrow a cervical canal may produce (and generally does) dysmenorrhœa; the conditions of dystocia or the causes of sterility are likewise frequently traceable to arrested embryogenic development, or may be induced by infantile and prepubertic pathogenesis. However interesting these points may be, I must, for the present, defer their elaboration to a consideration of the development and functions of the vagina, as well as its abnormal implantations, in order to explain upon what exact grounds vagino-cervioplasty was performed on Mrs. Cummings, and

why I deemed the operation feasible long before I had experience enough to sustain these preconceived ideas. Now let us study the structure and objects of the vagina. In the embryo, the vagina is an organ of mixed formation, intermediate in function and position, and is produced by the cleavage or hollowing out of a membranous spur—a true cloacal septum—between the bladder and rectum. This process occurs about eight weeks after conception, when the uterine and vaginal cavities are one and continuous. About the fifth month these two organs are materially distinct, and, if no arrest of development has taken place, or no increased formative action been manifested, the implantation of the vagina upon the cervix (what is known as “histological fusion”) will be of that character denominated healthy or normal, so that when the girl reaches puberty, the angulation at the junction of cervix and vagina will be about 155° , and the correlations of place perfectly symmetrical.

In the perfect woman, the vagina is fused normally to the cervix higher upon the posterior than upon the anterior surfaces. Posteriorly it is reflected upon itself, and its upper or pelvic extremity is convex and in juxtaposition with that fold of the peritoneum known as Douglas's pouch. Anteriorly, but on a lower plane, it is attached to the cervix behind and to the bladder in front, and sends processes or duplicatures in a horizontal direction, without dipping or folding upon itself, as in the posterior fornix. In totality, the vagina is an inverted cone, with a greater amount of ballooning posteriorly than anteriorly. The sustentative functions of the vagina depend upon its surrounding connective tissue, as well as its attachments to the pelvic fasciæ from and around the bladder (the pubo-vesico-uterine ligaments of Hyrtl), and the dissepiments and processes of musculo-serous tissue attached to the sacro-lumbar ligaments. When no increase, either of vascular, muscular, or connective tissue takes place, the *vagino-cervical fusions are mutually sustentative and supporting, and it is only when the correlation of place and order is destroyed by pathogenetic causes that we are called upon to treat post-pubertic lesions and congenital or teratological abnormalities.*

Normally, the intravaginal portion of the cervix uteri in the average-sized nulliparous woman has a dip of about half an inch, and in parous women somewhat less, but with a corresponding increase in length in the supravaginal portion, the isthmus, and the fundus. The depth from the os externum to the fundus of the nulliparous woman during the intermenstrual period is a fraction over two and a half inches, and something less than three inches in mothers. Any marked increase beyond these measurements is indicative of hypertrophic elongation of the cervix, subinvolution of the entire organ, the presence of a neoplasm or hyperplastic formations. In the patient before us, the persistence of the normal measurements in totality, notwithstanding an excessive elongation of the intravaginal cervix, indicated a faulty implantation of the vagina, and not a hypertrophic elongation of the cervix. The treatment of such a case prior to 1870, consisted in ablation, either by the knife, the écraseur, or the galvano-cautery, of half or three-quarters of an inch of the elongated neck. *Such amputations I deem to be mutilations, when the entire length of the cervical and corporeal cavities do not exceed three inches.* Amputations of the neck of the uterus, particularly by the écraseur, are fraught with great danger, and quite a number have been recorded where the peritoneal cavity has been opened. Mark

you, I do not advise you never to amputate the neck of the uterus, but not to amputate such cases as this presented to you to-day.

There is another anomaly of defective cervico-vaginal dimension, the very converse of the subject under consideration, and it consists of an implantation or fusion of the vagina too low down upon the cervix, giving it an intravaginal dip of hardly more than the sixth of an inch. I would not call this an “infantile neck,” as it is described in the books, because the *true* infantile neck is relatively greater in size and development than is the uterine body. For this condition no method of treatment has as yet been devised; possibly a plastic sliding of the vagina upward, the converse of what you saw me do in vagino-cervioplasty, may be successfully made, whereby the superior edges of the circumcision may be “hemmed” down to the cervical tissue proper, and the intervening spaces filled up with granulations. Vagino-cervioplasty is applicable to those cases where

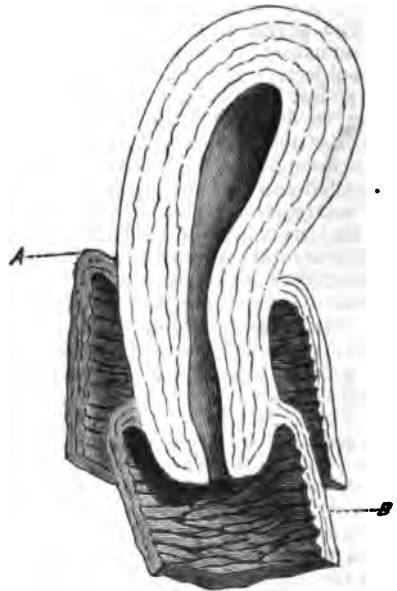


FIG. 1.—A. Abnormal implantation of the vagina producing intravaginal elongation of the cervix. B. Normal vaginal implantation. This figure is given as illustrative of the mechanism of the lesion under consideration by comparison of the two conditions.

the longitudinal diameter of the utero-cervical cavity does not exceed three inches, but where the intravaginal portion of the cervix is so long as to interfere with either locomotion, sitting, coition, menstruation, or conception.

The most remarkable instance of excessive intravaginal elongation is reported by Martine (of Biberach), where the posterior fornix was attached to the fundus of the uterus. Ordinarily in this anomaly the fusion takes place on a level with the isthmus, about three-fourths of an inch too high, but not sufficiently high to invade the retro-uterine pouch (Douglas's cul-de-sac).

In performing the operation for vagino-cervioplasty, we must be careful to make our dissection to avoid a possible invasion of this peritoneal pouch, and for that reason the upper margin of denudation is sloped lower on the posterior wall of the cervix than on the anterior; and the inferior margin is likewise stripped lower on the posterior than on the anterior surface. This latter stripping is done for the purpose of equalizing the strain upon the stitches, so that when the

wound is drawn together it looks like a ring around the cervix pushed higher on the anterior than on the posterior wall.

To recapitulate: vagino-cervioplasty consists in a circumsection of the mucous membrane by means of a bistoury, with its cutting edge at right angles to the shank, and stripping it from the cervix to a point about three lines from its distal extremity anteriorly,

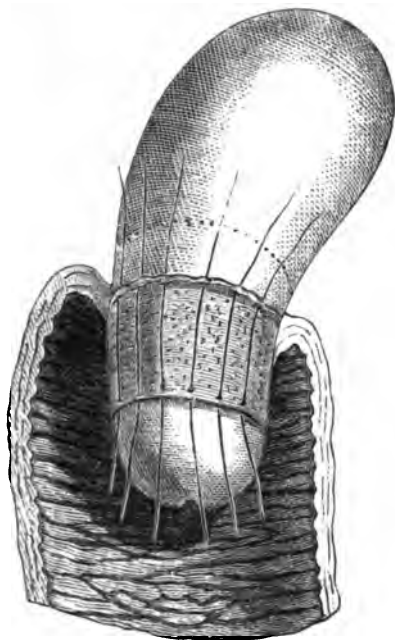


FIG. 2.—Showing the line of separation above the stripped cervical mucous membrane, and the position of the silver sutures before the sliding is perfected.

a little more than three lines posteriorly, and carrying the dissection upward for about an inch anteriorly, less than an inch posteriorly. This leaves nearly the whole of the vaginal portion denuded of its mucous covering. Ordinarily the hemorrhage is but slight, as no vessels of any magnitude are normally encountered.

The next step of the operation should not be commenced until all bleeding has ceased, as it is of the utmost importance to see each section of the sub-mucous connective tissue. The first incision is made with scissors curved on the flat, cutting with the concavity toward the cervical tissue; when a separation is made, a tenaculum is hooked into the mucous membrane, and the dissection is carried halfway around the cervix; the tenaculum is handed to an assistant, and another inserted into the undenuded mucous membrane, where the stripping was first commenced, and a similar separation is made on the opposite side until the first is met.

The depth of these incisions of separation varies from three to eight lines, according to the greater or less length of the cervix. Should a vessel of any magnitude be divided (as it was in this case), it must be torsioned or ligated at either orifice, for reasons well understood. Usually the bleeding has been controlled by sponging with cold alum-water. The silver wire (or carbolized-thymolized-silk suture) is then passed from above downward, from without inward on the upper flap, and from within outward on the lower flap. All sutures are inserted by means of the

"fish-hook" needle, trocar-pointed.* In my first operation I used very short, straight needles, half an inch in length, but they were not so conveniently passed as the fish-hook needles since used in all operations about the cervix uteri, or in either fornix of the vagina. When the sutures are all adjusted, three in front and four behind, the parts are drawn together, and the apparently elongated cervix is short-

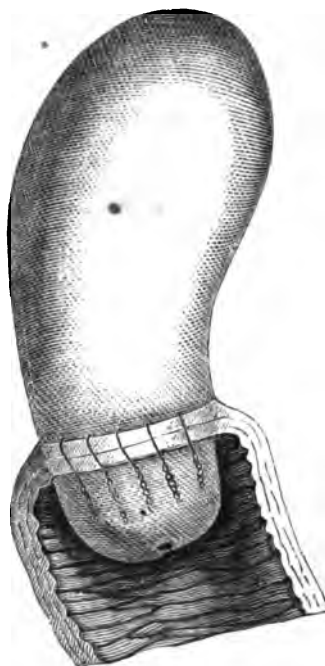


FIG. 3.—Showing the adjustment of the flaps, and the appearance of the neck after vagino-cervioplasty.

ened by being covered by the reflected vagina; or, more accurately speaking, the cervix, deprived of its adherent mucous membrane, is drawn upward into the upper loosened sheath.

In all the five cases upon which I have operated, union has been complete and the sutures withdrawn on an average of about twelve days.

The treatment subsequent to vagino-cervioplasty consists in such cares as are rendered all patients after operative procedure upon the genital organs; such as horizontal posture, evacuation of the bladder (if necessary) every six hours, quiescence of the bowels, and sometimes the exhibition of opium.

Pelvic cellulitis, non-union of the wounds, inflammatory developments—in fact, any of the sequelæ of pelvic surgery might supervene after vagino-cervioplasty as well as after any other operation about these parts; but they are infinitely less probable than if amputation of the cervix had been made. You saw the *modus operandi*, and I have entered again into its detailed description, so that you may fully appreciate the *modus faciendi*. Now you may ask why such an apparently tedious and intricate surgical procedure was done in this case, and in what conditions of the sexual apparatus would you be warranted to attempt it?

The patient presented herself here simply because of her sterility. She had no aches nor pains, save

* For more than fourteen years I have used "trocar-pointed" needles of all shapes, ground very short, and if any one will make the trial, it will be found that they are vastly superior to all other needles.

during marital congress; then she always had dyspareunia. This pain at coition is readily understood, because the vagina was relatively shortened and the uterus actually lower in the pelvis. Every intromission of the male organ not only stretched the vagina, but likewise impinged upon the dragged uterus.

Her sterility was clearly mechanical, because it was entirely out of the question to presume that the semen could be ejected into the canal of a cervix which lay parallel to the male organ whenever this latter was in the vagina. Ejaculation of the spermatozoa took place behind and above the cervix, high up in the posterior vaginal fornix; and unless the germinating fluid is thrown directly into the canal of the cervix, conception will not take place, however much the book-making physiologists may say to the contrary. If it were not intended for the semen to be propelled or thrown into the uterus, of what use are the ejaculator muscles? If the spermatozoa possess the so-called elective power of *crawling* down the cervix, over its inferior margin, into the canal, thence up into the uterus to hunt up the ovum, and there to embrace it, as an anaconda winds around its unsuspecting prey, why should the mechanics of erectility and motility be so superbly illustrated as in the central fixation of the uterus in the pelvis pending the loading of the venous trabeculae around the whole generative tract? Nature nowhere adapts ends without physical means. Conception never takes place unless the male germinating fluid encounters the female ovum in such a place where the placental tufts may thrive and grow. Never does the semen seek these spots unless it has been implanted there; it does not permeate the organism like a secretion!

Now this operation of vagino-cervioplasty was made for the purpose of allowing the implantation of the seminal fluid in the proper place. I have lengthened the vagina by relatively shortening the neck. The strain has been removed—that of dragging from below, as well as of pressure from above. If fruition should ensue, clearly it will be another fact illustrative of purely physical conditions, an establishment of the correlation of order and place, as productive of results hitherto regarded as a species of mysticism. The correction of defective physical relationships in the overcoming of sterility is worthy of the profoundest study, and numerous surgical procedures may be cited as evidence, and none more so than the plastic sliding of the vaginal mucous membrane in apparent elongation of the cervix.

NOTE.—July 14th.—This patient was exhibited to the New York Obstetrical Society in June. Then, as now, the result of the operation was most apparent. She was last seen on July 8d, and was free from dyspareunia. Her menstruation was due on July 6th, but she has not since reported.

The cervix uteri is not more than three-fourths of an inch in length, and is quite two inches from the vulvar orifice. The ante-curvature of the body of the uterus had very much diminished.

THE EXPECTANT TREATMENT OF CHOREA.—At the Radcliffe Infirmary, Oxford, a case of chorea was recently treated without medicine. The patient, a boy of ten, was placed in a well-padded crib and supplied with the most nutritious food. The symptoms were severe, and for ten days slightly increased in violence. On the tenth day a remarkable subsidence of the choreic movements took place, and from this time the child steadily improved. By the end of the tenth week from the beginning of the attack he was completely well. It is a curious fact that the duration of the disease thus left to itself was the same as that estimated by Hillier and See as the average duration under all kinds of medical treatment.—*Lancet*, July 5, 1879.

Original Communications.

CONTRIBUTIONS TO ORTHOPÆDIC SURGERY.

By CHAS. F. STILLMAN, M.D.,

PLAINFIELD, N. J. (CURATOR TO ST. FRANCIS'S HOSPITAL, N. Y.)

AT a time when appliances for the relief of Pott's disease are becoming as varied as at present, and when it is desirable in so many instances to employ extension and expose diseased surface, I should fail in my duty to my profession did I refrain from drawing attention to a splint for these purposes, which is proving itself in my hands, and in the hands of many surgeons throughout the country, of the utmost service in producing these results.

In January, 1878, the writer originated the idea of using an apparatus embodying extension and fixation for Pott's disease of the spine, and in February, 1878, incorporated an article upon the subject in a pamphlet published by Geo. Tiemann & Co., of New York. I produced extension by means of a compound bracket, consisting of two overriding, slotted strips, connecting two terminal zinc perforated plates, imbedded in plaster-of-Paris above and below the seat of disease—and, so far as I have learned up to the present time, was the first to apply the apparatus. I soon found the plan impracticable, however, except in the first stages of disease, because the unequal lengthening or shortening of the extension strips would alter the position of the plaster-of-Paris attachment to the body, thus causing discomfort to

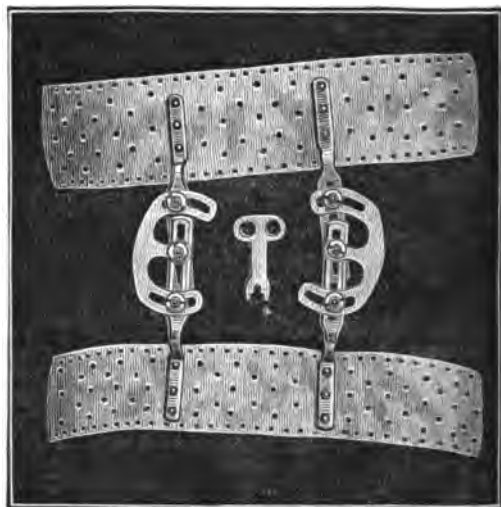


Fig. 1.

the patient. Pursuing my investigations, I have since found that keeping the extension-strips at right angles to the attachment, however great the deformity, by the addition of a modification of my slotted steel sector to each (see Fig. 1), and the use of an original combination, immovable dressing of adhesive plaster and plaster-of-Paris, starch, etc., enables the surgeon to obtain the fixation, extension, exposure, and gradual reduction of deformity which are the requisites of mechanical treatment, without disturbing the attachment to the body, or causing discomfort to the wearer.

by its impingement upon one point of the surface more than another. The weight of the bracket is from six to ten ounces, the bridges and sectors of which are made from very strong and light crucible steel, so tempered at the incline that they may be bent to any angle with the terminal plates, which are made of thin, flexible copper, to enable close adjustment to the body; the whole being nickel-plated, to avoid rust (see Fig. 1).

APPLICATION.

Stand or seat the patient erectly, and apply strips of canton-flannel (or moleskin) adhesive plaster vertically around the entire waist, above and below the seat of disease, one-eighth to one-half inch being left uncovered between the strips. Next, encircle the two divisions of the waist transversely with long strips of the same material. We have now a strong adhesive-plaster base on the body to which to fasten the bracket. Next, sew two strips of the adhesive plaster, of sufficient length to more than encircle the body, to the terminal plates, as shown in Fig. 4, and bend the plates to conform accurately to the surface of the body.

After adjusting the bracket, with its bridge shortened as much as possible, and its clamps loosened, fasten it securely and tightly to the body by means of the adhesive plaster. Firmness and fixation are now given to the splint by rollers of starch or plaster-of-Paris bandage wound tightly over the whole, these uniting with the nap which covers the outside of the adhesive plaster, to form one immovable splint, which is firmly fastened to the skin over a large extent of surface, and yet conforms so accurately and immovably to the convexities of the pelvis and chest, that no amount of extension we may deem it necessary to employ can cause its displacement, if the sector be employed.

This combination of adhesive plaster and starch, plaster-of-Paris, silicate, or other immovable bandage, makes a much lighter attachment than plaster-of-Paris alone, adjusts itself to the body more accurately, and does not suffer the same amount of expansion and consequent loosening, while retaining the good qualities of firmness and fixation. (In several cases lately where I have thought it advisable to apply Sayre's plaster jacket, I have used this combination instead of the plaster alone, and in every case with congratulatory results.) A great advantage of this splint is the avoidance of any suspension apparatus during its application, and, consequently, the avoidance of cramped and painful positions; there being no necessity for undue haste, the clamps not being tightened necessarily until after the completion of the application.

This splint possesses all the advantages of the plaster jacket; but, in addition, we are enabled to straighten a patient while still keeping up extension, thus tending to keep weight off the diseased part, separating the opposed diseased surfaces, exposing the external surface for application and elastic compression, and fulfilling generally all the mechanical conditions necessary for the relief of vertebral disease. It is provided with a clamp-key, so that it can only be manipulated by the person in charge. The brace shown in Figs. 1 and 2 was used successfully in a case of Pott's disease in which the lateral curvature was a prominent feature. For posterior curvature the sector and slotted strips are placed antero-posteriorly.

HIP-JOINT.

Two objections against the use of any existing braces or other contrivances for the relief of inflamma-

tory conditions of this joint, are obviated by the use of my sector splint and combination attachment. These are: 1st, the perineal band with its chafing and discomfort; and 2d, the production of extension in only one position and subsequent ankylosis. For this pur-



FIG. 2.

pose the splint is used as a oracket (although the sector arrangement may be inserted into any brace). It consists of two terminal plates of thin copper—perforated upon the upper or plaster side—connected by a compound slotted bridge raised a short distance from the surface. This bridge consists of two over-

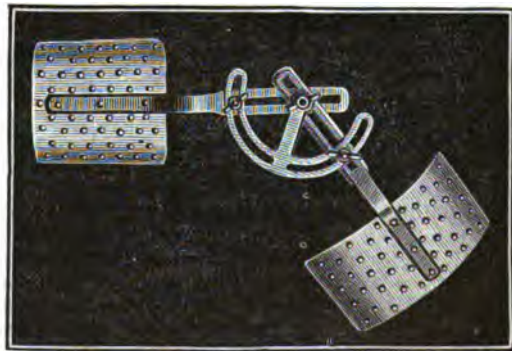


FIG. 3.

riding slotted steel strips, connected to a slotted steel sector by three clamps, as shown in Fig. 3.

These clamps may be operated either with a thumb-screw or key.

APPLICATION.

Strips of the canton-flannel adhesive plaster are fastened vertically around the waist and along the

thigh of the affected side, a space of one-eighth to one-half inch between, and then bound down by longer strips encircling them. The plates of the bracket are then sewed to two long strips of the adhesive plaster (see Fig. 4), which binds it down closely and unalterably to the limb.



FIG. 4.

In applying the bracket, care should be taken to have the central line of the strips and plates correspond to axes of the body and thigh, and the bridge shortened. It may be applied in any position of the limb. The bracket is now to be closely bound down to limb and waist by the thick, strong adhesive plaster (the bridge being in position over the joint), and only needs a few rollers of starch-silicate or plaster-of-Paris bandage wound around the plates to insure the firmness and fixation of the whole, cleanliness being effected by a dry muslin-bandage covering. (See Fig. 5.)

Every inflammatory condition of this joint—acute or subacute—whether arising from disease, injury, or operation, can be benefited by this simple splint; for by allowing the limb to be fixed in the most suitable position, and causing extension to be made in that position, diseased surfaces are separated, reparation encouraged, and the sufferings of the patient diminished. Passive motion may be employed as often as desired, the limb between such occasions being locked securely by the clamps in any position, and with any degree of extension, any induced or existing inflammation being combated by external applications, which are permitted by the exposure of surface allowed by the structure of the splint.

This splint is sufficiently powerful to effect a gradual reduction of deformity, ankylosis, etc., and with a very little degree of discomfort to the patient, as the fulcrum of the lever is in the bridge of the splint over the joint and not in the joint itself, the contiguous surfaces of which are previously drawn apart and retained so during and after the reduction. This process may be repeated as often as necessary, and in many cases will obviate the necessity for operation.

This splint in its various modifications may be used for all or any of the joints of the body, occupying for itself a new and unique field among surgical appliances, bearing the same relation to the knife in surgery that the bougie or gradual dilator does to the knife in the treatment of stricture of the urethra, doing away with its use in many cases, and when it is used, assisting

the knife, by placing the joint under the best possible condition for rapid, proper, and complete recovery. In morbus coxarius it is proving itself invaluable, and in connection with the crutches and the raised shoe (Hutchinson's method), fulfils every indication for treatment, although I have found the advantages

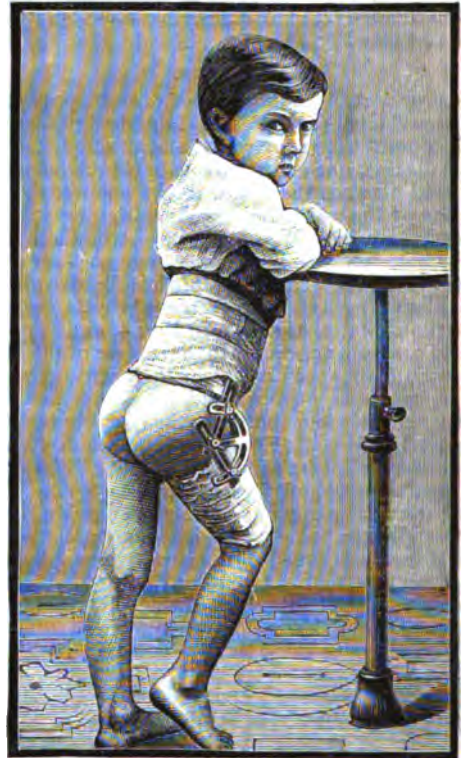


FIG. 5.

arising from the shoe not so important providing the crutches and the bracket were used. The use of the latter causes pain, startings of the limb, etc., to cease at once, and allows the patient to pursue out-door occupations. Among other recommendations of the splint may be mentioned:

- 1st. Utility—the uses for the splint being so varied.
- 2d. Simplicity.
- 3d. Durability.
- 4th. Cheapness.

One bridge can be used for any or all of the large joints of the body by means of removable attachments to terminal plates of assorted sizes. It may be used with any form of joint, brace, or attachment, the slotted strips and sector being readily inserted into them by competent workmen. In itself it provides a false joint, fulfilling all the mechanical conditions of the joint, while that is kept under the best influences for proper recovery.

It combines all the valuable or necessary movements of all the joint-splints in use, and is much more simple and easily managed.

THE BRITISH MEDICAL JOURNAL states that not a single case of the plague occurred among the Kal-mucks, who live totally regardless of sanitary rules, although the disease recently prevailed epidemically only a short distance from them. The conclusion seems to be that the disease is really due to some other agent than anti-hygienic conditions.

ULCERATION OF THE CERVIX UTERI COMPLICATING SALPINGITIS, AND ANTERIOR AND POSTERIOR VERSION.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

For the expressive title of "Anterior and Posterior Version of the Uterus" I am indebted to Dr. Samuel C. Busey, who published a most interesting case under this heading in Vol. III. of the *Gynecological Transactions*. After reading his reprint, I am induced by his suggestion of its propriety to report a case of somewhat similar nature, but even more complicated in detail. It is the more phenomenal as occurring in an unmarried female.

History.—Miss A., 22 years of age, unmarried, the daughter of a distinguished lawyer and member of Congress, consulted me on June 5th, giving the following history: She had always been an ambitious student, a great reader, and of literary tastes. She was reared in all the luxury that wealth could give, and had indulged in those dissipations, so subversive of physical well-being, which the civilization of the age encourages. Two years previously she had overexerted herself by getting up in the night and accompanying a young lady to witness the conflagration of the county court-house. Since that time she has complained of a fixed and constant pain in the occiput, spasmodic muscular contractions, dimness of vision, with conjunctival congestion; pains in the back and loins, in both iliac regions; rectal and vesical tenesmus, and general debility.

Appearance at time of consultation.—The patient is below the medium stature, of a bilious habit, pale and thin. Her face is flushed, with head thrown back; both eyes suffused; pupils dilated. The central retinal artery of both eyes is congested. There is a constant and fixed pain in the occiput, with occasional tonic and clonic contractions of the fingers, and considerable idiosia. She is unable to walk any distance, and can sit up but for a short time. Two weeks prior to her arrival in Washington she says that she had two spasms. She complains of pain in the back, of neuralgic pains following the course of the ascending and descending colon, of pain in both thighs, and of a frequent desire to urinate. She has suffered from a catarrhal discharge from the vagina, which has frequently been tinged with blood.

Pathological conditions.—The patient being in the dorsal position, a digital examination, which was effected not without difficulty, discovered a round, enlarged body occupying the cul-de-sac of Douglas, which proved to be the fundus. The cervix was tilted up upon the symphysis pubis. The vaginal walls were hot, swollen, and dry. The neck was rough to the touch, enlarged, and doughy. Placing the patient in Sims's position, I endeavored to tilt the womb over into a normal position with the dorsal aspect of the first and index fingers, asking her to take a deep inspiration, and at the moment of lifting to make a prolonged expiration. Failing to accomplish anything in this way, I introduced the sponge-holder, and by abdominal manipulation I succeeded in replacing the organ; but, immediately upon withdrawing the instrument, it assumed its condition of retroversion. I then introduced a Simpson's sound, hoping to use it as a lever. To my astonishment it passed up over five inches. After a little patience I found the normal measurement of three inches, and then passed the sound up the tube for at least an inch and one-half farther. I then told the patient that I

would not subject her to any continued annoyance, but would return upon the morrow, prepared to better her condition. I advised the free use of the vaginal douche of hot water night and morning, that she should abandon corsets, suspend her clothing from the shoulders, and rest in bed upon her side, with the head low and the hips elevated. My diagnosis was ulceration, retroversion, salpingitis. The next day I called with the intention of meeting these indications, but was utterly surprised to find the womb in a position of anteversion. I could not be mistaken in my diagnosis of the day previous, which was reached after great care, and hence concluded that it must be one of those rare cases of interchanging version. The patient being in Sims's position, through a Barnes' plectrum speculum I carried a pledget of cotton, well saturated with a solution of subnitrate of bismuth and glycerine, to the cervix, and then carefully withdrew the instrument, so that the collapse of the vaginal walls might hold it *in situ*. I ordered her to remove it by means of the silk thread attached to it, at the end of twelve hours, and to insert a suppository of tannin and belladonna. On June 8th, after introducing a Sims's speculum, I found that the granulations were not as exuberant, that the color of the cervix was more natural, and that there was no bleeding. I painted the cervix with a saturated solution of tannin and collodion. I then took wads of prepared jeweler's cotton (saturated in a solution of bicarbonate of soda, and well dried), dipped them in carbolic oil, and carried one up into the fornix vaginae, pressing up the fundus, and the other opposite to it, over the cervix (the womb being anteverted). I then placed a tampon of the same material in the vagina, advising that she leave all in place for forty-eight hours. I prescribed a pill to be taken three times a day, as follows:

℞ Ferri redacti.....	gr. ij.
Quiniae sulphatis.....	gr. i.
Strychniae sulph.....	gr. $\frac{1}{10}$
Arsenic.....	gr. $\frac{1}{20}$
Hyoscyamin (Merck).....	gr. $\frac{1}{8}$

and ordered the semi-abdominal decubitus for six hours a day. After two days I again visited her, and removed the tampon and rollers. The granulations were still flabby and unhealthy; these I touched with chromic acid, and painted the whole surface with the bismuth paste. After replacing the womb, I again resorted to the cotton supports, until I might devise some permanent apparatus which could be worn without danger of irritation. Hygienic and therapeutic treatment to be continued. I was much puzzled as to a means of holding the womb in proper position. Naturally, in primiparae there is intolerance of any instrument that may occasion distention, and, in any event, the whole womb was so irritable that a peritoneal cellulitis might easily have been induced by a pessary of ordinary make. I determined to continue the use of the cotton until I could establish a *habit* of correct position in the uterus, even if it were of the very slightest degree; to use an ointment of tannin and vaseline over the hypogastrium, to relieve anæmia, and to act on the nervous system. Every forty-eight hours for two weeks I removed the cotton, washed out the vagina until I found that the uterus was accustoming itself to a slight condition of anteversion, when I introduced a pessary made for me after the following plan: A wire pessary of fine steel, with its opposite ends rounded off and parallel—somewhat after the manner of a Hodge's retroversion, if it were straightened out—was wrapped with carbo-

lized ligature silk, so that the end that should rest upon and support the fundus should be well padded, and of greater bulk than the other parts. Midway the pessary was divided by two padded wire septa, leaving a sufficiently large fenestrum for the cervix. The padded end I carried up under the fundus; then bent the pessary so that the cervix should be fixed in the fenestrum, the other part resting against the symphysis pubis. I dry-cupped the cervical region, and rubbed in croton oil behind the ears. The next day my patient complained of less pain, and said that she experienced no discomfort from the mechanical contrivance. I evacuated the blisters, and prescribed capsules of the compound pill of assafoetida and oil of anise. The pessary she wore for ten days; at the expiration of that time I removed it, and, finding the uterus in good position, but the vaginal walls flaccid, I prescribed suppositories, to be used night and morning, of tannin and belladonna, hoping to establish such contraction of the vaginal canal as that its walls might afford the necessary support. At the time of writing the patient is doing well; the uterus remains in position; the vaginal canal, having resumed its proper dimensions, serves as a support; there is no pain in the back, or rectal or vesical tenesmus. The pain in the occiput still continues, and it may be that I shall apply leeches to the temple and order Duquesnel's aconitine internally.

1502 FOURTEENTH STREET, N. W.

A CASE OF DOUBLE OVARIOTOMY.

By DR. JOHN I. DYER,

VISITING PHYSICIAN TO THE WASHINGTON ASYLUM, D. C.

A. M—, German, aged thirty-five years, of sanguine temperament, mother of one child, now sixteen years old, was admitted into the Washington Asylum Hospital November 15, 1878, with a large tumor in the abdomen, supposed to be fibroid of the uterus.

Inquiry into the history of the case elicited the facts that the tumor was first noticed about the 1st of March, 1877, as a round ball in the left iliac region, and very movable. It grew rapidly, and was attended with almost constant pain. After seeking relief in various quarters, she was admitted, as above stated, into the hospital under my charge. The tumor was then as large as the gravid uterus at full term, very tense, elastic, and immovable.

Careful examinations made at different times, together with its rather rapid increase in size, led to the opinion that it might be a cystic growth of the ovary, and it was resolved to aspirate it. This was done on the 4th of February, and a gallon of fluid was drawn, with the result of diminishing its size about one-third.

Previous to, and after this operation, frequent attacks of pain in the abdomen, with tenderness on pressure and motion, were complained of, which were relieved by morph. sulph., and latterly suppositories of opium as needed.

With the additional light of a microscopical examination made by Dr. Schaeffer, and in consultation with Drs. Thompson, Eliot, and Ashford, the diagnosis of left multilocular ovarian tumor was made and ovariectomy advised, as giving the patient, already beginning to depreciate very markedly, her only chance of relief. She gave a ready and cheerful consent.

For three days before the operation she was restricted to a liquid diet exclusively, and on the morn-

ing of the operation her bowels were freely moved by enema. Twenty gra. quin. sulph. were given the night before, and tinct. foetid, $\frac{3}{4}$ ss., and tinct. opii gtt. l., in a small quantity of water, was thrown into the bowels a few hours before the operation.

Having thus prepared the patient, on February 26th I proceeded to operate, assisted by Drs. Wailes, Ashford, Eliot, and Reyburn. Being quickly brought under the influence of the anæsthetic, and the carbolic spray directed continuously upon the parts, an incision of about four inches, commencing just below the umbilicus, was made, and carefully dividing the abdominal parietes the tumor was exposed. A trocar was plunged into the presenting walls of a cyst, and its contents evacuated. A second and a third were thus opened, and the growth could only be partially drawn through the incision. This being enlarged downward an inch and a half, it was found that the tumor was firmly adherent, below and in front, to the uterus, whilst laterally and behind its whole circumference was attached by strong adhesions to adjacent parts.

These were with considerable difficulty torn through, and in doing so two cysts were ruptured and their contents lost, one of which contained from six to eight ounces of pus. These small arteries spirted and were secured by ligatures, which, cut short, were left in the cavity of the abdomen.

All adhesions being separated, it was found that the tumor was right ovarian, which by change of position in its early stage of development had fallen into the left iliac space. Its pedicle, consisting of the right broad ligament with Fallopian tube enclosed, being stretched across its lower anterior surface, spreading as it advanced toward the right side of the abdominal cavity into a broad expansion of very vascular peritoneal tissue.

Through about the centre of this, three ligatures were passed, and brought out through the abdominal incision. The left ovary was then sought for, drawn out, and found to be in a similar encysted condition, though much smaller in size—about that of a healthy kidney. Two ligatures were passed through its pedicle, brought out at the lower end of the wound, and the diseased ovary cut off.

Atlee's clamp was applied to the pedicle of the right ovary, and the wound—a glass drainage-tube being placed in its lower angle—closed with silver-wire sutures.

The time consumed in the operation was one hour and forty minutes, and this length of time must be taken as the measure of the difficulty met with in separating the close adhesions which bound the tumor to neighboring structures.

The weight of the solid portion of the tumors was six pounds. Their fluid contents were partially caught in a vessel conveniently placed; a portion, probably one-half, was unavoidably lost, and through the carelessness of one of the nurses, what had been collected was thrown away before its amount could be determined by weight or measure.

The patient, cold and nearly pulseless, was put to bed, hot blankets and bottles of hot water applied around her. Hypodermic injections of morph. sulph., $\frac{1}{4}$ gr. twice repeated, and of whiskey more frequently, were given, and in five or six hours she began to react, so that at 10 o'clock P.M. her pulse stood at 135, temperature 102° F. Towards morning the catheter was used. Nausea and vomiting distressed her during the night and for some days afterwards; but the plan of treatment, keeping her fully under the influence of opium, and using the antiseptic

tic treatment of the wound, was steadily kept up, with the result of a recovery, in what was considered at the end of the operation a hopeless case.

I will give a brief summary from notes taken at the time, of the progress of the case to the date of the separation of the ligatures, prepared by Dr. Timins, resident physician of the asylum, whose unceasing care and devotion to the case by day and night deserve the highest praise:

Feb. 27th, 6 P.M.—Pulse 135, temperature 99° F. Passed the first night with frequent attacks of retching, and complained of pain, referred to lumbar region. Crushed ice, opium in suppository, and morphia hypodermically used. Catheter used; but she had passed water, and continued to do so without difficulty thereafter.

Feb. 28th, 8 A.M.—Pulse 135, temperature 100.8° F. Great thirst and prostration. Small quantities of milk-punch and crushed ice given, but the stomach retained nothing. Severe pains, now and again in back, combated with opium suppositories and morphia hypodermically. Had short nap. 6 P.M.—Pulse 120, temperature 98° F.

March 1st, 6 A.M.—Pulse 114, temperature 99° F. Great epigastric pain. Ordered mustard poultice and hypodermic injection of morph. sulph., gr. $\frac{1}{4}$. Except cracked ice, nothing was given this day by the mouth. Nutritive enemata were given of milk, yolk of egg, and brandy to the second one, to which tinct. opii gtt. i. was added. Moreover, 4 grs. of opium in suppository was used during the twenty-four hours. Wound dressed; considerable overflow from drainage-tube, with but little odor. Cavity washed out with carbolized water.

March 2d.—Pulse and temperature as before. Gastric irritability worse. Small quantities of hot drinks tried. Also champagne and ice, bismuth, oxalate of cerium, bromide of potassium per rectum, with no benefit. Then nothing whatever was given by the mouth, merely moistened now and then with tea or milk. Nourishment restricted to enemata. This day tympanitis with borborygmus set in, annoying her more or less for the next four days. Asafoetida, turpentine, with other remedies, were given per rectum, which, together with the continued use of opium, kept the patient fairly comfortable.

March 3d.—Temperature 101.5° F. this day. Stomach tolerated a little beef-tea. Ordered quin. sulph., grs. xxx. per rectum.

March 4th.—Begins to take nourishment by the mouth, and, except on two occasions, vomited no more. Pulse fell to 100 this day and continued throughout the remainder of the time noted.

March 5th.—Ordered injection of warm water—carbolyzed—containing turpentine and asafoetida, with the result of a good movement from the bowels, and great relief of flatus.

March 6th.—Began to dress wound twice in twenty-four hours. Smaller-sized drainage-tube inserted.

March 7th.—Clamp and sutures removed.

March 8th.—Drainage-tube removed.

March 9th.—Considerable purulent matter and a large offensive flake washed out of the cavity this morning. Ligature of left pedicle still fast; no abdominal tenderness. Quin. sulph., gr. xx. per rectum.

March 12th.—Ligatures came away this day. Dressing reduced to once in twenty-four hours. The wound contracted nicely, and by the 24th inst. was entirely closed. The patient sits up, feeling well, and able to get about, which she will be allowed to do as soon as she gets an abdominal supporter.

Reports of Hospitals.

WOMAN'S HOSPITAL OF THE STATE OF NEW YORK.

SERVICE OF NATHAN BOZEMAN, M.D.

RETROFLEXION OF THE UTERUS, WITH FIXATION.

A CASE of retroflexion was shown in which the uterus was bent backward almost at a right angle, and yet in which the patient had not consulted medical advice until after the menopause.

The organ was in a state of marked fixation, which was thought to be probably the result of some former inflammatory process, although the only abnormal feature about the pelvis now discoverable, with the exception of the condition of the uterus, was the thickening of the broad ligaments, which is so frequently found in cases of this kind. The patient had been subject to uterine hemorrhage more or less severe and frequent, and the fundus had been in such a hyperæmic condition, that the slightest touch of the probe was followed by quite a free flow of blood. This engorgement was being treated with applications of a solution of carbolic acid in glycerine, of the strength of half a drachm to the ounce, and also by the frequent use of hot vaginal douches. Under this course of treatment, decided improvement had taken place, notwithstanding the fact that it was as yet impossible to restore the uterus to its normal position. A little later it was proposed to accomplish this restoration by gradual pressure upon the vagina and the fundus uteri by means of the persistent use, for a sufficient length of time, of cotton columns applied in the vagina, in accordance with the method that has proved so successful in Dr. Bozeman's hands.

The plan is original with him, and is somewhat as follows: The patient having been placed in the knee-elbow position, and Bozeman's speculum introduced, a pledget of carbolyzed cotton is pushed up against the fundus with a pair of dressing-forceps, and held in position there by means of the perineal elevator ordinarily employed in connection with this speculum. A second and third pledget is then applied in the same manner, the perineal elevator being drawn a little further out as each is introduced; and this process is carried on until a firm column of cotton, not stuffing up the whole vagina, but of comparatively narrow diameter, has been formed that reaches obliquely from the fundus of the uterus to the symphysis pubis, which is here the *point d'appui*. Such a column may ordinarily be left in position for about two days, but should not be allowed to remain for longer than forty-eight hours. These columns should be put in about every three days, the patient being allowed to rest for twenty-four hours after the removal of each one, and vaginal douches being used in the interval. When by this means the uterus has been restored to its normal position and the vagina to its normal condition, any appropriate support may be worn by the patient as long as is necessary, and that which is best adapted for the purpose is the instrument known as

BOZEMAN'S VAGINAL SUPPORT.

It has been thus described by Dr. Bozeman, in a paper presented to the American Gynecological Society in 1878: *

* The Mechanism of Retroversion and Prolapsus of the Uterus considered in Relation to the Simple Lacerations of the Cervix Uteri and their Treatment by Bloody Operations.—*Gynecological Transactions*, Volume III.

"This instrument is constructed upon the principle of the parallelogram. It is elastic and thoroughly self-sustaining. The instrument is made of coiled steel wire. It has vesical and rectal branches, which are covered with thin rubber up to points near the heel of the instrument, where an opening is left for the escape of the menstrual and other discharges. Upon the vesical branch is set a hair cushion which is to receive and support the vesico-vaginal septum. The covering of the rectal branch is distended with air, in order that it may adapt itself uniformly to the recto-vaginal septum. The two upper uneven points are united by a broad elastic apron, which, like a chair, is to receive the cervix uteri, and, to a certain extent, support the weight of the entire organ. When viewed edgewise, the instrument presents somewhat the appearance of a jockey's cap, and a medical friend suggested that it be called the 'jockey-cap pessary.' However, to avoid the name of a uterine pessary, I prefer to call it a *vaginal support*. This name is in strict accord with the action of the instrument, for it leaves the uterus and its relaxed ligaments to take care of themselves in their normal relation and position. This is an attainment of the highest aim I can conceive for any form of instrument employed for the latter purpose."

The great objection to its use is, that after a time it becomes offensive on account of the absorption of the vaginal discharges by the rubber with which it is covered; but this can be obviated, to a great extent, by providing the patient with two of these supports, so that she need not wear either instrument very long at a time. After one of them is removed it should be thoroughly cleansed with a solution of permanganate of potassa. It may be stated also that improvements are now being made in the construction of the instrument, which will prevent it from becoming thus offensive. One advantage connected with this instrument which has not been mentioned, is that the patient can be readily instructed how to introduce and adjust it, as well as to withdraw it, herself.

Where there is anteversion or anteversion instead of retroflexion present, the treatment is the same in principle. Here the patient is placed preferably on the back, while the column of carbolized cotton is built up from the perineum as the *point d'appui*, and extends obliquely to the vesico-vaginal septum, where the body or the fundus rests. When the organ has once been restored, the vaginal support is to be worn as before.

SMALL PELVIC TUMOR OF DOUBTFUL DIAGNOSIS.

In this case, there was a mass at the side of the uterus somewhat in the region of the left ovary, of several years' growth, which had pushed the body of the uterus to some extent over the right, and which occasioned the patient a great amount of severe pain. It was situated at a point just above the juncture of the cervix with the body of the uterus, and the exact nature of the tumor had not as yet been determined. The fact that it was close to the uterus, as well as its very slow growth, seemed to exclude the ovary as the seat of trouble, and the diagnosis lay, apparently, between cyst of the broad ligament and fibroma of the uterus. There were some points in favor of both of these hypotheses.

Thus there could be no doubt that it was intimately associated with the uterus, as its mobility, aside from that of this organ, could not be established; but still it certainly had not that firm consistence which ordinarily characterizes uterine fibroids. Yet, on the other hand, while the mass yielded, to

some extent, to pressure made upon it by the fingers, it was not nearly as soft to the touch as cysts of the broad ligament are apt to be, nor did it present that sense of fluctuation which, as a rule, is met with in these growths. The diagnosis was thus left somewhat in doubt; but it was proposed, a little later, unless some new developments should be made in the case, to puncture the tumor, and see whether it were not really a cyst. The pain, in Dr. Bozeman's opinion, was probably due simply to the increasing distention of the growth, and not to the pressure produced by it upon the surrounding pelvic organs, as its size was such that it would hardly be likely to occasion much inconvenience in this way. If this idea were correct, great good would no doubt be accomplished by the proposed puncture, on account of the relief from pain which it would thus afford.

BOZEMAN'S SPECULUM.

During the examination of this case, Dr. Bozeman at one time made use of Sims' speculum in connection with his own (which afforded a very perfect view of the os, cervix, and vagina); but this is never necessary when one has at hand the special perineal elevator, somewhat like a narrow spatula, which is ordinarily employed with his instrument. Bozeman's speculum is a bivalve instrument, which, by an admirable mechanical contrivance, is made to work on the principle of the parallelogram of forces, according to which, the greater the resistance, the greater is the power exerted. Hence, as the blades become more and more widely separated by turning the ratchet which controls their action, the force with which they distend the vaginal walls is gradually increased, while, in addition, their distal ends flare to a greater and greater extent. This renders the instrument self-retaining, and the services of a nurse or attendant can therefore be altogether dispensed with in its use. Other advantages of this speculum are, that the blades, being comparatively narrow, and, being widely separated when in position, the best possible view of the parts can be obtained at the same time that ample room is afforded for performing any operation about the cervix or vagina; and that it can be used while the patient is lying upon the side or back, or is in the knee-chest position, which, in many instances, is decidedly preferable. When the instrument is employed with the woman on her back, Dr. Bozeman is in the habit of slipping in a third or posterior blade (for which there is a provision made), and the perineal elevator above mentioned can also be used at the same time, if desired, which makes a complete and excellent four-bladed speculum of it. When the patient is in either of the other postures, only the perineal elevator is necessary.

LARGE FIBROMA OF THE UTERUS.

A patient, thirty-three years of age, had a large fibroma of the uterus, which had given rise to so much metrorrhagia that she had become exsanguinated to a very serious degree. It was in the posterior wall of the organ, and when the case was first examined, it was thought that it extended only the length of the normal uterus, to which distance only could the probe be passed.

So far from this being the case, however, it was soon ascertained that the fibroid reached fully to the height of the umbilicus, if not a little above this point. If the abdomen could have been more readily compressed, the fundus would no doubt have been felt very much in its natural position, with the exception of its being thrust slightly forward by the fibroid.

while between the two the fingers would have passed into a distinct sulcus.

When the speculum was introduced, the lowest portion of the growth could be plainly seen behind the cervix, and the os externum was found to be very widely dilated, with some eversion of its lips. Still, the mucous membrane of the cervical canal was quite healthy in appearance, as far as it could be seen.

When the patient first came under observation, it was believed that the fibroid projected to some extent into the uterine cavity, and that it would probably be a good case for the employment of Thomas's serrated scoop; but later investigation showed that this was not really the fact. Dr. Emmet had recently seen the case in consultation, and he had concurred in the opinion that no operative procedure should be attempted, for the present at least. The great point now was to build up the patient's general health in every way possible; and since her admission to the hospital she had improved very much in this respect, at the same time that the uterine hemorrhages had become much less frequent and copious than they had been previously. The only local treatment that she was receiving was the hot-water vaginal douche, and the painting of the cervix, and Douglas's cul-de-sac, two or three times a week, with Churchill's tincture of iodine. In case the metrorrhagia should return more freely, it was recommended that the iodine should be applied within the cavity of the uterus also. Internally she was taking two drachms of Squibb's fluid extract of ergot three times a day, in the hope that the contractions caused by it might have the effect of forcing it, to a greater or less extent, down into the cavity of the uterus.

PROLAPSED AND IMPRISONED OVARY IN A CASE CURED OF VAGINITIS AND VAGINISMUS.

This patient had recently suffered very greatly from vaginismus, which was due to vaginitis formerly existing, and this had been successfully treated by the method of systematic and continued dilatation. There still remained, however, an abnormal condition of the ovary, which gave her a great deal of distress, and which was the cause of various shooting pains about the hip, pelvis, and down the thigh, that are, as a rule, characteristic of this difficulty.

The right ovary, probably on account of its being in a state of marked congestion, had become prolapsed, and had slipped down, not into Douglas's cul-de-sac, as sometimes occurs, but simply behind the broad ligament, and had there become imprisoned, as it were.

The local treatment consisted in pressing the ovary up as far as possible into its normal position by means of a cotton tampon; and it was stated that, even in cases where the organ remained fixed in its prolapsed situation, great relief from suffering was not infrequently experienced by the patient, merely on account of the pressure exerted upon the organ. The patient's general condition had improved very greatly during her residence in the hospital.

VESICO-UTERO-VAGINAL FISTULA, COMPLICATED WITH INCARCERATION OF THE CERVIX UTERI IN THE BLADDER.

When first admitted, this case had been a very complicated one. The fistula was immediately in connection with the cervix, and that portion of the uterus was actually protruding into the bladder, while the body of the organ itself was in a state of complete retroflexion. This displacement had now been rectified, and several preliminary operations, in pursuance

of the method of lateral incisions, had already been performed. Nitrate of silver was being applied locally from time to time, and it was hoped that before long the final operation for the complete closure of the fistula, might be undertaken with a reasonable hope of success.

CYSTOCELE AND HYPERTROPHY OF THE URETHRA.

The last case seen was one in which Dr. Bozeman had performed ovariectomy six or eight weeks previously. The operation had been a complete success in every way, but, in addition to the ovarian trouble, she had suffered from a considerable degree of prolapsus of the uterus, together with marked prolapse of the anterior wall of the vagina and the bladder, and hypertrophy of the urethra. Since the ovariectomy, the prolapsus of the uterus had been gotten rid of, but there still remained the other difficulties named. Attention was now being directed mainly to the condition of the urethra, and twice a week a solution of forty grains of nitrate of silver to the ounce was being applied to the urethral canal, while a solution of sixty grains to the ounce was applied about its orifice and the adjacent mucous membrane.

After the urethra had been restored as far as possible to its normal condition, it was proposed that the patient should wear one of Dr. Bozeman's elastic vaginal supporters, and it was believed that if she did so constantly, the presence of the cystocele still remaining would not occasion her any inconvenience whatever. The great advantage of this supporter, as above stated, is, that it can be adjusted at will by the patient herself; and it is found to be of service in a very extended variety of cases. Especially is it valuable in instances of hypertrophy and congestion of the uterus, where the patient is subject to marked menorrhagia and other troublesome symptoms. Almost invariably, in such cases, after the woman has worn the supporter for some little time, it is found that the menorrhagia disappears entirely (the catamenia lasting only the normal period, instead of a week, or even ten or twelve days), and, the congestion of the uterus being thus relieved, that all sense of weight and discomfort about the pelvis is dissipated.

Progress of Medical Science.

TYPHOID FEVER DUE TO THE INGESTION OF DISEASED MEAT.—An epidemic of typhoid fever, interesting in its etiology, followed a musical festival at Zurich, in May, 1878. Out of some 700 assistants, 500 were attacked by the disease, of whom 100 died. The symptoms could not be mistaken, and the autopsies confirmed the diagnosis. A minute inquiry into the circumstances left but little doubt, that the epidemic was due to the use of bad veal furnished by an inn-keeper of the place. It may be claimed by those who attribute to general causes the power of originating specific diseases, that the typhoid fever was due to a septic poison present in the veal, depending possibly on a beginning fermentation, which was not destroyed by the cooking to which it had been submitted. On the other hand, as the animal from which the meat was taken was sick, it may be asked whether it might not have been suffering from typhoid fever, although this disease has never yet been recognized among animals. It is a remarkable fact that in 1839 a similar but much less fatal epidemic occurred in a neighboring locality. After a reunion that took place under similar circumstances, 440 persons were taken sick with all

the symptoms of typhoid fever. It is probable that in this case also the meat of a sick calf gave rise to the disease.—*Journal de Médecine*, June, 1879.

AN OINTMENT FOR CHRONIC PAINS.—The following is recommended for the pains of chronic or sub-acute gout, rheumatism, neuralgia, etc., by Dr. Lenoble, of Esternay:

R. Pulv. Gambogiæ,
Myrrhæ,
Canellæ,
Sodæ salicylat. 35 10 grammes,

reduced to the proper consistency with spirits of turpentine. The affected part should be well rubbed with this three times a day, and then enveloped in cotton or wool.—*Revue Médicale*, June 14, 1879.

OCULAR CHANCRE.—The following case is reported by M. Boucheron: A young woman, eighteen years of age, presented an intense redness of the conjunctiva, the pericorneal injection of iritis, the hypertrophy of the semi-lunar fold seen in certain cases of palpebral granulations, and the symptoms of a foreign body present in the internal angle of the eye. A careful examination revealed a small ulcerated groove, with gray borders, on the semi-lunar fold. A chain of indurated glands was also found, extending from the pre-auricular gland, behind the angle of the jaw, to the lateral region of the neck. A diagnosis of indurated chancre was made, and confirmed shortly afterward by the appearance of a confluent roseolar eruption. Cases analogous to this have already been observed; among others, that of a professor of the *Faculté de Paris*, lately dead, who was also inoculated on the semi-lunar fold, the poison being conveyed thither on his finger, while endeavoring to relieve an itching of his eye, immediately after examining a woman. In M. Boucheron's case, the poison was probably communicated by means of a kiss from a person suffering from mucous patches of the buccal mucous membrane.—*Gazette des Hôpitaux*, June 14, 1879.

ORGANIC STRICTURE OF THE PROSTATIC URETHRA.—The existence of stricture of the prostatic urethra, although maintained by Leroy d'Etiolles, Ricord, Civiale, and others, is denied by Sir Henry Thompson, who has been unable to find any anatomical specimen proving it, and who rejects as unreliable evidences drawn from examinations of the living body. The following case, however, reported by Dr. Mastin, of Mobile, Ala., deserves examination:

J. B., aged 46, applied in June, 1877, for relief of stricture. He had contracted gonorrhœa in 1856, and again in 1861; shortly after which his stream of urine diminished in size. In 1871 and in 1874 he was attacked by complete retention, which was only relieved by forcible catheterization. At this time (June, 1877) he could only pass his water by drops. On examination, a sound, No. 22 F., could be passed down the urethra with ease for a distance of seven and one-quarter inches, beyond which not even the smallest filiform could be introduced. This, according to Sir Henry's measurements, would place the obstruction at the apex of the prostate. Otis's urethrometer showed the normal calibre of the urethra to be 32 mm., and the canal anterior to the prostate to be free from contraction, except at one point about an inch anterior to the bulb, where it was narrowed to 21½ mm. External perineal urethrotomy was determined upon, and Dr. Mastin proceeded to cut down upon the end of a staff. Opening into the membranous urethra, he placed his finger upon the

apex of the prostate, and proceeded to satisfy himself that there could be no mistake as to the position of the stricture. It was unmistakably within the prostate. After some difficulty a Maisonneuve urethrotome was carried into the bladder, and the stricture divided. The patient did well. Nine days later, the anterior constriction was operated upon, and a sound, No. 32 F., carried into the bladder. Eighteen days after the first operation, he was discharged cured. To guard against the mistake, pointed out by Sir Henry Thompson, of regarding the narrowing of the canal occasioned by certain enlargements of the prostate as organic stricture, a careful examination was made at the time of the operation. There was no hypertrophy of the gland; on the contrary, it was below the average size. Dr. Mastin is inclined to think that the trouble started first in a prostatitis, and was afterward aggravated by the mechanical injury suffered from the forcible introduction of the catheter.—*The Boston Medical and Surgical Journal*, July 26, 1879.

METHOD OF REMOVING HAIRS.—A writer in the *Michigan Medical News* gives the following method of eradicating superfluous hairs, as practised by Dr. C. E. Mitchell, of St. Louis: The hair is seized and held with a pair of ordinary forceps, and a sharp needle fastened to a handle (a small, sharp pegging-awl will do) is passed down parallel to the hair, within its sheath, until the bottom of the follicle is reached; the point of a small needle, also provided with a handle, is then dipped into some fused nitrate of silver, until a minute ball of crystals gathers around the point, and the hair-follicle is thoroughly cauterized with this miniature caustic point thrust through the puncture previously made. In a few hours the hair will ulcerate out by the root, without pain; no visible lesion is left, and the hair does not grow again.—*The Medical and Surgical Reporter*, June 28, 1879.

PUSTULAR INFLAMMATION OF THE VAGINA.—The following case is reported by Dr. Herman, of the London Hospital: A woman, aged 27, applied for relief from a thick yellow discharge from the vagina. A tolerably distinct syphilitic history was obtained. On digital examination, the vagina was felt to be studded with small, hard, raised, roundish, shot-like swellings, varying in size from a small shot to that of a small pea. These were most numerous at the upper part of the vagina, where they were so abundant as to become confluent in spots. With the speculum these were seen to present different appearances. Some were simply papule-like elevations; some were smooth, rounded, but yellow in the centre, as if containing pus; some presented on their summits crater-like depressions, lined or bordered with yellowish white—seemingly pustules which had burst; and some were simply small, superficial ulcers. Between these diseased parts, the nearly healthy mucous membrane could be seen—smooth, but somewhat bluish in color, and more injected than the healthy membrane nearer the vulva. The vaginal portion of the cervix uteri presented appearances somewhat similar to those of the general vaginal surface: it was red and raw-looking everywhere, and when first seen pustules were present. The vagina and os uteri contained a thick, yellow, glutinous discharge. Dr. Herman has himself seen no other case of the kind, nor has he been able to find records of any similar case. In the "granular vaginitis" described by Deville, pustules are not mentioned as being present.—*The Obstetrical Journal of Great Britain and Ireland*, July, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, August 30, 1879.

THE REGULATION OF PROSTITUTION AS A SANITARY MEASURE.

THERE is no doubt of the fact that the majority of the medical profession are in favor of some method of so regulating prostitution as to diminish the amount of disease that its existence entails. Being, as they are, brought constantly in contact with the immense evils which venereal diseases inflict upon society, it is natural and praiseworthy that they take the ground they do. We believe, however, that there is a very general ignorance of the exact results of the regulation systems now in vogue, and we propose to present some facts upon this point.

The position of the sanitarian and regulationist is essentially this: Venereal disease causes direct injury to the citizens of the state; it cripples their activity, and may throw them as a burden on the government. The government, therefore, has a right to protect itself from such disease as much as from small-pox or typhus. In order to do this there must be a governmental supervision and medical examination of prostitutes. In defence of the justice of such plan, it is claimed that the prostitute is to be regarded as a person who has certain things to sell; she follows a trade, and she has no right to sell goods which damage and infect society. There should be protection given here, just as well as from poisonous adulterations in any other branch of trade.

From another standpoint, again, it is argued that prostitution is inevitable, and its existence is necessary as a safeguard against worse evils. Therefore, what is inevitable and necessary should be rendered as innocuous as possible. It is asserted, further, that duties and rights are correlative. If a person fails to perform the former, he or she cannot claim the latter; and prostitutes, not having performed their duties, have thus abrogated their rights. Stripped of casuistry and elaborate statement, the point of the matter

is, that a great danger is to be guarded against, and the end justifies the means.

Whatever train of argument may be followed, we believe it a legitimate conclusion that, if any law or regulation can lessen the dangers from venereal diseases without greatly violating justice or natural rights, it should be adopted.

We do not propose, and it is not our province, to discuss the moral side of the question, any further than it involves this question of natural rights, but simply to discover whether, as a sanitary measure, some system of regulation may not be adopted which will be just, efficient, and worthy of encouragement. There is a great deal of material before us now for judging whether this is possible. For many years the regulation system has been working in various countries in Europe. In one country—England—it has been partially adopted by law; elsewhere it is a municipal regulation only. For three years it was tried in St. Louis, and an effort—summarily crushed, however—has been recently made to revive it there. It is at present the subject of parliamentary inquiry in England.

From a review of the evidence so far collected it is impossible to avoid the conclusion that in most places the system is a decided failure, while in England only, under peculiar conditions, it is, to a certain extent, a success. This failure lies in the fact especially that, as a sanitary measure, the "regulations" are miserably inefficient. There is an abundance of statistics pointing to this conclusion.

In Paris all prostitutes are compelled to register themselves as such, and subject themselves to periodical examinations. There is so strong an effort to evade this regulation, that out of the 30,000 prostitutes in that city only about 4,000 are registered. The remainder, as well as all the men who consort with them, thus escape inspection and may disseminate disease. As inspections are made only twice a month, it is evident that there is no great security even among those who are examined. This is shown by the fact that among those examined during the decade ending in 1875, the amount of gonorrhœa and non-specific diseases of the genital organs increased from 43 to 195 per thousand. The number of syphilitic cases increased from 892 to 1,044. The number of venereal cases treated in the hospitals was, in 1867, 6,359; in 1875, 6,568. It is asserted by Dr. Drysdale that the number of venereal cases in the London hospitals is less than in those of Paris. This increase in disease has taken place in spite of particularly stringent efforts to carry out the regulations completely. On the whole, the reports of the Bureau des Mœurs, which has this system in charge, show that only about one-eighth of the prostitutes are reached, that the gonorrhœal diseases are greatly increased and syphilis slightly so, all this in spite of an elaborate and very expensive system of attempted repression. Remem-

bering the infrequency of inspections, it is not difficult to understand this. An inspection twice, or at least once a week, is necessary to secure any tolerable degree of safety. We are unable, therefore, to draw any other conclusion from these facts than the one that has been expressed, and M. Le Cours himself, the Chief of the Bureau des Mœurs, asserts the same opinion. "This state of things," he says, "reveals the existence of a social malady which no mere police measures are able to cope with or destroy. . . . It is impossible by any such measures to make cohabitation with a harlot safe."

It seems to be generally acknowledged that if laws cannot be carried out in Paris they will be sure to fail elsewhere, and an examination of the workings of the regulation system in other cities proves this to be true. The same facts of limited registration and unlimited venereal disease appear among them. Better results, to be sure, are claimed for the British Contagious Diseases Acts, and we are inclined to believe the claim valid. These acts are intended for the protection in particular of the soldiers and sailors, and they apply only to certain garrisoned towns. Concerning them their opponents say that they are unconstitutional; that they do a gross injustice to the woman, and that under them there has been an absolute increase of gonorrhœa, as well as to a less extent of syphilis. This asserted increase of syphilis is not clearly shown, though the decrease, if any, has been small. The increase of gonorrhœa, however, was up to 1878 a fact; during this last year, however, that disease also was, according to the reports, markedly decreased in the army, though not in the navy.

To offset this lack of striking sanitary results, however, it appears that the prostitutes themselves live more comfortable and orderly lives, and greater outward decency is obtained. But even assuming these acts to be just and efficient, it furnishes no argument for a general extension of similar regulations to ordinary cities. The social conditions in these and in small garrisoned towns with 20,000 celibates quartered upon them are immensely different.

In this connection the *Medical and Surgical Reporter*, referring recently to the apparent success and general endorsement of the British Contagious Diseases Acts, lamented the backwardness and timidity of American medical journals in not advocating the adoption of regulation acts with us. We can only say that our esteemed contemporary appears to have been led by an ignorance of the nature and extent of those acts to an unjust criticism of their brethren. Medical journals will advocate regulation when the experience of those who have tried it will justify them in doing so. But at present it does not.

We assert again, therefore, that the regulation system as now applied to ordinary communities fails to prevent the extension of venereal diseases. It is, indeed, absurd to suppose that semi-monthly exami-

nations of one-eighth, or more properly one-sixteenth, of those liable to communicate infection can attain any adequate results.

This fact of sanitary failure is so thoroughly established, that one of two grounds only can be taken in regard to the matter. We must either give up the idea of regulation entirely, or we must seek some new and more efficient method than that now in practice. We have so far failed to learn of any practicable substitute for the present methods. The matter was referred to a committee at the annual meeting of the American Medical Association in 1874, and their appreciation of the difficulty may perhaps be inferred from the fact that they have not yet reported upon it.

We have a word to say, in conclusion, concerning the ethics of the matter. We cannot accept the position that the prostitute has forfeited her natural and legal rights, and that she is not entitled to justice in the laws made concerning her. She sells, to be sure, and that is admitted to be base, while the man buys, and that is considered only foolish; but the offence is the same in both, and the law should not make one only the criminal. Woman's sphere of labor is narrow, her wages pitifully small, and she is paid best for prostituting herself. She is often forced into the trade by very necessity. It is hardly just therefore that the laws should protect man alone.

This fact has often been recognized, and attempts been made to carry out a double inspection. But so far they have been found impracticable.

Out of the fertility of the human mind there may in time come some efficient system of regulating prostitution; at present, however, its future looks as dubious as its past has been unsuccessful.

HAY-FEVER.

At the present time there are probably nearly 50,000 people suffering from what is called hay-fever.

When this affection was first recognized it was supposed that it depended upon the irritation produced by the pollen of certain flowers and grasses which floated in the air in the months of May, June, July, and August of each year.

Subsequently it was claimed that two distinct forms of the disease existed, and to one was given the name of "June cold," while the other received the name "autumnal catarrh."

Further observation revealed the fact that an affection characterized by symptoms essentially the same as those seen in connection with hay-asthma, hay-fever, June cold, rose cold, autumnal catarrh, etc., occurred in seasons of the year in which none of the supposed exciting causes of the hay-fever could operate, and for some time the reasoning was that it must be some other disease than that produced by the pollen of plants. It was also observed that certain persons were peculiarly affected when brought in contact with certain animals, such as the cat, and by the

vapor from certain animal substances, such as warm milk. These observations, and others of like character, have from time to time led to modifications of former opinions regarding the nature of hay-fever, and, at last, have given rise to a theory which has been promulgated as one capable of explaining all the phenomena of the disease whenever and wherever occurring.

In this country two books have been written on hay-fever: one—the oldest, and for a long time the only systematic monograph upon the subject—by Dr. Jeffries Wyman, of Boston; the other by Dr. Geo. M. Beard, of New York. In Dr. Beard's book we find the first open announcement of the theory to which we have already referred, namely, the "nerve theory." This theory is the result of the study of one hundred cases, and it is that hay-fever is a neurosis. According to this theory, the disease is subjective instead of objective; external irritants, which are exceedingly numerous, such as rag-weed, pollen, etc., are of a secondary and a tertiary character and powerless in themselves to produce the disease, and produce the disease only when acting on a nervous idiosyncrasy. This author has described a new form of the disease, which he calls the July cold, or middle form, which links the early form, or June cold, with the later form, or autumnal catarrh. It seems to us that the nerve theory explains many of the cases which have heretofore been regarded as very obscure; for example, those in which the symptoms peculiar to hay-fever have continued from May to November, or during the winter months, or all the year round. If the nerve theory be true—and it seems to be fairly sustained—it revolutionizes the treatment of the disease. It must be attacked from a new point of view; yet it cannot be successfully claimed that all cases are to be treated alike, or that any specific can be found for it. The remedies to be employed are those which are not painful—not even disagreeable. Of course, removal from the exciting cause is the primary factor in obtaining prompt relief; but, when this cannot be effected, the symptoms can be greatly relieved, and many cases cured, by such remedies as arsenic, nux vomica, carbolic acid, belladonna, tonics and sedatives, electricity, etc., and their combinations.

IMPROPER USE OF PHYSICIANS' PRESCRIPTIONS.

The pilfering tendencies of some druggists is an acknowledged fact. Not long since it was made known to us that a druggist claimed that a single prescription made by an eminent surgeon, had, within ten years, been worth to him ten thousand dollars.

If, in any instance, those who pilfer would use all the prescription, no more and no less, it might be an element of safety in the absorbing process; but when the druggist puts on the livery of the "knowing" instrument-maker and insists that he can make valuable improvements upon the original design, then it

is that his asinine qualifications loom into view, and the consumer of his nostrum unknowingly runs the risk of being killed or permanently injured.

Not long since a druggist in one of our western cities maltreated a physician's prescription to such an extent that, instead of sending capsules containing sulphate of quinine and Dover's powder, he sent capsules containing cincho-quinine, capsicum, and rhubarb. In this particular case the patient called the physician's attention to the fact that the medicine last obtained at the drug-store seemed to be different from that which had first been taken, and the statement led to the discovery that the deformed prescription had been written by the druggist, and yet it was properly signed by the physician's name. Imagine the physician's surprise; and, being a calm man, he said that if such practice was indulged in to any extent by druggists it would lead to serious trouble. We should hope it would; at least for the druggist.

The attention of our readers has, on former occasions, been called to the reprehensible practice which some druggists have of abridging the prescription of the physician as well as substituting one drug for another that has a similar physical appearance. All these breaches of good faith between the druggist and the doctor should be treated in the most prompt and radical manner known both to the law and to the code of medical common sense.

Reviews and Notices of Books.

QUESTIONS ON FOOD AND CLOTHING, FOR HOME LESSONS AND EXAMINATION. By MRS. W. T. GREENUP.

HERE is a little primer containing 190 questions, divided into nineteen lectures and followed by a supplement containing four additional questions, and a chapter on clothing containing 114 questions, with a supplement containing six questions.

If all the girls in the United States were compelled to study and to labor until they could give a good, clear, practical answer to all these questions—answers based upon a personal ability to demonstrate their truthfulness—what a contribution it would be to the aggregate domestic felicity of our country! For example, the following question meets us, and, in turn, is followed by a wonder as to how many can answer it and then carry the answer into practical effect:

"If mother were from home, and you had to keep house for a week, how would you manage to have a hot dinner every day for father, self, and brother, supposing you had but one joint of meat in the week? Say what you would have on each day of the week." We fear it is more than probable that, in a very large proportion of cases, the answer *now* would be, "Go to the restaurant;" for, according to Bayard Taylor, the word is derived from *res*, a thing, and *taurus*, a bull. Hence, it is a bully thing, and especially so under the circumstances of mother being absent from home. Fortunately, indeed, are the fond fathers whose daughters have doting mothers who can give a practical solution to this apparently formidable question. Yet there are very many who can answer the question

practically, and thus swell the heart of paterfamilias with delight and his stomach with good food.

Food and clothing are two corner-stones in the monument to be erected to preventive medicine, and were every mother and daughter throughout the land thoroughly familiar with their healthful preparation, it would be like the long arm of a powerful lever, with which the medical profession could operate in resisting the invasion and spread of disease.

OUR DOMESTIC POISONS; or, the Poisonous Effects of Certain Dyes and Colors used in Domestic Fabrics. By HENRY CARR, M. Inst. C. E. London: William Ridgway, 169 Piccadilly, W. 1879.

THIS writer, in his little monograph of fifty pages, gives his observations regarding the insidious character of *arsenical* poisoning, and states, contrary to a popular opinion, that arsenic is not confined to green color, but enters into the composition of a large number of dyes which are used for coloring wall-paper and dress fabrics. According to this author, arsenic enters into the composition of the aniline colors, and is also used in indigo dyes, where a mineral poison would be least expected. This is an important statement, and if knowledge of the fact could become general, it would probably lead to the removal of this element of danger from a class of dyes which of themselves act as irritants, to say the least, when they come in contact with the skin of some persons.

Cases of chronic arsenical poisoning are cited, and to the pamphlet proper are added letters from medical men and professors of chemistry.

It is a valuable article, because it illustrates the great value of preventive medicine.

COMPLIMENTARY DINNER given to Professor S. D. Gross by his Medical Friends, in Commemoration of his Fifty-first Year in the Profession, April 10, 1879. Philadelphia: Lindsay & Blakiston. 1879.

THIS beautiful monograph contains the preliminary arrangements, the speeches made at the dinner, the letters and telegrams received from gentlemen who were invited, but were not able to be present, the names of the invited guests, and the names of the subscribers. It also contains a most faithful likeness of the eminent professor in whose honor the complimentary dinner was given.

THE BRAIN AND ITS DISEASES. Part I. Syphilis of the Brain and Spinal Cord. By THOMAS STRETCH DOWSE, M.D. New York: G. P. Putnam's Sons. Pp. 144. Illustrated with colored lithographs and photographs. 1879.

THIS is a reprint of an English work which was reviewed in THE RECORD, June 21, 1879. It is elegantly printed and illustrated.

A TEXT-BOOK OF PHYSIOLOGY. By J. FULTON, M.D., M.B.C.S., Prof. of Physiology in Trinity Medical College, Toronto, etc. Second Edition, revised and enlarged. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson. Pp. 416. 1879.

THIS is a well-printed octavo containing 151 illustrations, some of which are duplicates, and almost all of which are old acquaintances. As its title indicates, it is written for the use of students, but only for students preparing for a pass-examination. It has the flavor, not of the laboratory, but of the library. The author has drawn diligently from many sources, and, as a rule, states conclusions categorically and without argument. Considering the size of the book, a noteworthy feature is the prominence given to histology.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, A.M., M.D., Clinical Professor of Dermatology, Starling Medical College, Columbus, Ohio; Member of American Dermatological Association, etc. Parts I. and II. Colored plates taken from life. New York: E. B. Treat, No. 805 Broadway.

IN these parts, which are the first of a series of twelve, we have illustrated comedo, acne vulgaris, lepra tuberosa, elephantiasis, keloid, rosacea, psoriasis nummulata, and ichthyosis simplex. With photographic accuracy these affections of the skin are given, although the reproduction is not made by the photographic process, but by a process from photographic negatives that gives equally accurate results. The skilled artist to whom has been entrusted the work of slight coloring, has done his work very well, and yet it almost seems as though he was a trifle timid on approaching some of the specimens, and hence somewhat hurried with his brush. It is so easy, by means of coloring material, to give false colors, that this part of the work needs to be done with very great care. None but a skilled artist should be entrusted with it; and none but a skilled artist who exercises the greatest care will succeed in giving satisfactory illustrations. The descriptions of the diseases which are illustrated are excellent, and the treatment such as will be of service to the general practitioner. We shall look for the subsequent parts with pleasure, and if the same degree of perfection is exhibited as in those which are before us, both author and artist will have won the compliments of the profession.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Held in the City of Cork, Ireland, August 5th, 6th, 7th, and 8th, 1879.

(Special Report for THE MEDICAL RECORD.)

(Continued from page 187.)

THURSDAY, AUGUST 7TH—THIRD DAY.

THE Association was called to order at 10 A.M. by the President, DR. D. C. O'CONNOR.

REPORT OF MEDICAL REFORM COMMITTEE.

DR. WATERS, Chairman of the Medical Reform Committee, read the annual report, in which, after giving a review of the work of the committee, special reference was made to the effort that had been made to secure a direct representation in Parliament.

On motion by DR. FALCONER, the thanks of the Association were extended to Mr. Arthur Mills, M.P., for his efforts in behalf of the medical profession, and for his able advocacy of the principles of medical reform.

REPORT OF THE COMMITTEE FOR PROMOTING LEGISLATIVE RESTRICTIONS FOR HABITUAL DRUNKARDS.

DR. ALFRED CARPENTER, President of the Council, read the report of the committee, in which the Association was congratulated on the passage of the measure introduced into Parliament, which could be considered the first installment of a more perfect measure. Dr. Carpenter, in moving the adoption of the report, said that in the course of a few months they would be able to provide typical institutions for

ladies and for gentlemen, rich and poor, so that cases could be treated and restored, and so that persons addicted to this vice might become useful members of society.

The report was unanimously adopted.

SCIENTIFIC GRANTS COMMITTEE.

The report of the Scientific Grants Committee showed that £120 had been appropriated for researches with the view of testing the application of antiseptic surgery in cases of lesion of the skull, brain, and its membranes; on the function of the kidney, and on the physical conditions which regulate the flow of urine; an investigation into the anatomical characters of certain diseases of the skin allied to tubercular, scrofulous, lupoid, and syphilitic affections; and investigations on anæsthetics.

ADDRESS IN SURGERY.

MR. WILLIAM S. SAVORY, F.R.S., lecturer and surgeon in St. Bartholomew's Hospital, then delivered his address on

THE PREVENTION OF BLOOD-POISONING IN THE PRACTICE OF SURGERY.

He said that blood-poisoning was undoubtedly the chief evil which waited upon the surgeon's work. It hovered over every operation; it was not yet a thing of the past, but much had of late been done to avert its evil effects. No one could tell how many lives were in former times sacrificed by blood-poisoning in its comprehensive sense, for, the nature of the mischief being unknown, it was in those times set down to various causes. He used the word "blood-poisoning" in its comprehensive sense to express the sum of the efforts produced by the introduction into the blood of matter charged by the action of septic poison. By septic poison he meant matter capable of producing or promoting putrefaction. There was a confusion in the current use of the phrase antiseptic surgery. That should mean the principle which arrived at the securing of healthy wounds, and those then repaired as speedily as possible by the most scrupulous cleanliness, not only in the common, but in the surgical sense. Thus understood, antiseptic surgery ought to be simply equivalent to good surgery. But antiseptic surgery, as commonly understood, implied the liberal employment in practice of special agents known as antiseptics, and in that sense again all surgeons now practised it. Finally, the term was now most commonly used to explain what was more precisely known as Lister's method of dressing wounds. Dr. Savory read a table which he had prepared, showing the statistics of blood-poisoning after operations in St. Bartholomew's Hospital for three years. From that it appeared that after 1,235 operations, the number of deaths from blood-poisoning was eighteen. The best results had been obtained by the simplest means. They aimed at the most scrupulous cleanliness. They watched very carefully the actual state of the wounds, and they used antiseptics of various kinds very freely. With cleanliness they attached the highest importance to rest. They disturbed wounds as little as possible during the process of repair; they were most jealous of the state of the atmosphere of the wards; ventilation was only effected by open windows and large chimneys. They avoided carefully any tendency to overcrowding of cases of wounds in the same ward, and each patient had from 1,100 to 1,400 cubic feet of space. They attached the greatest importance to the state of the health and the general condition of the patient before operation; and they never, when

they had choice and opportunity, performed an operation without previous inquiry in that direction. Dr. Savory condemned the use of drainage-tubes in wounds unless in exceptional cases. It should always be remembered that they were foreign bodies in a wound. They irritated and provoked suppuration and formation of fluids. That wounds did at length close in spite of this treatment he was well aware; but they would all heal more quickly and kindly without disturbance if they were simply closed in a way which he explained. He spoke highly of the value of common bread poultices, carefully made and renewed at proper intervals of time. With regard to Lister's plan, which arrived at excluding blood-poisoning by the rigid exclusion of living germs, judging the plan by facts actually ascertained, there were, he said, no trustworthy statistics to show that the results obtained under Lister's method was much in advance of those obtained by other methods.

At the conclusion of the address, Dr. W. K. TANNER offered the following resolution:

"Resolved, That the best thanks of this Association are due, and are hereby tendered to Dr. W. S. Savory, F.R.S., for his able and interesting address in surgery."

MR. REGINALD HARRISON seconded the resolution, and said that he thought the association was much indebted to Dr. Savory for his outspoken criticism upon subjects of such vital importance. He had not shortened the subject he had undertaken to put before them; he had fearlessly and ably criticised a matter which was now occupying, and had occupied for some years past, the attention of the surgical and medical professions. He did not care to venture on any further observations, but would like to remark, that, as an old pupil of Dr. Savory's, he felt very considerable pleasure in seconding the resolution which had been proposed by Dr. Tanner.

The resolution was then put from the chair and carried with acclamation.

SURGEON-MAJOR REYNOLDS.

DR. CARPENTER, President of the Council, then presented Surgeon-Major Reynolds with the gold medal of the British Medical Association, for distinguished merit in performing professional service in Zululand, South Africa, Jan. 22 and 23, 1879, and caring for the wounded under fire. Surgeon-General Crawford responded in behalf of Surgeon-Major Reynolds, after which the Association adjourned, to meet on Friday at 10 A.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 25, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

(Concluded from page 188.)

CARCINOMATOUS STRICTURE OF THE OESOPHAGUS.

DR. ROBERT NEWMAN presented a specimen removed from the body of a gentleman who died in consequence of carcinoma of the oesophagus. The oesophagus was adherent to the spinal column. On opening the stomach there was evidently extension of the disease to the pylorus. All the other organs were apparently healthy. The interest in the case was the almost entire absence of symptoms. He had no pain at any time; there was no blood in the regurgitations, except occasionally at the latter part of a severe one, when slight streaks of blood were seen. The

entire duration of the case was about eight months, and the following is the history:

Mr. A. M., *et.* 72 years, came under observation with dyspeptic symptoms on February 7, 1879, with the following history: He had a regular yearly attack of hay-fever in August, but had otherwise always enjoyed excellent health; last November (1878) had suddenly an attack of hiccough, which was followed by some indigestion. He lost his appetite; gas accumulated in the intestines, and the food regurgitated. After this attack he felt better, but at times had dyspeptic symptoms, with acidity of stomach and some constipation. He has excellent normal teeth; eats slowly, and chews well, which proves that his ailment is not the consequence of insufficient mastication. Within the last month has lost flesh.

February 7th.—On examination no tumor is found; all the organs in the abdominal cavity appear healthy; no pain or even soreness is present. Deglutition is not impaired. On auscultation of *œsophagus* nothing abnormal is found. Has no distress after meals. All he complains of is flatulence, sometimes acidity, and occasionally a regurgitation of solid food. For this reason he avoids solid articles. The tongue is a little furred. Cancer was suspected, but no certain diagnosis made, on account of the symptoms not being distinct enough. During the month of February the treatment with various medicines had no positive results, the patient changing for better and worse alternately. He took his meals with appetite, but all he ate was not sufficient to keep up his normal weight; on the contrary, he lost flesh and felt weak.

March 1st.—In addition to his meals, rectal alimentation was added, principally with Leube's beef solution, prepared by F. Hoffman.

In consultation with Dr. A. Flint, a positive diagnosis of carcinoma was made, notwithstanding that no tumor could be felt.

From end of March until death he failed gradually. At times he had good appetite, and enjoyed different kinds of solid food; at others he could not swallow anything, everything regurgitated. Most of the time his diet consisted of stimulants, milk, essence of beef, milk-punch, champagne, oatmeal, and three to four rectal alimentations daily, with Leube's solution. The last has done excellent service, and it may fairly be said, kept him alive two months beyond his natural lifetime. He felt comparatively comfortable, never had any pain, but nevertheless was failing. He was sitting up in his chair until sixteen hours before his death, which occurred, June 23d, from *asthenia*.

The post-mortem was made twenty-four hours after death, with the kind assistance of Dr. A. M. Jacobus.

Dr. Jacobus made a microscopical examination, and gave the following report:

Upon examining a teased, fresh specimen of the growth, removed from the *œsophagus* and stomach of Mr. —, this morning, I find all the usual varieties of large cells—i. e., round, oval, fusiform, caudate, polygonal, etc.—which abound in a hard cancer. Many of the cells contain molecules of fat, and are undergoing retrogressive changes. Though the specimen is a teased one, there can be seen alveoli surrounded by an extensive fibroid stroma, each alveolus containing cells as above mentioned. There are also some larger or epithelial cells. Upon these facts, as well as the general appearance and chronicity of the growth, I base my diagnosis, and believe it to be a *scirrhus œsophagi*. Respectfully,

DR. A. M. JACOBUS.

ANOMALIES OF SPERMATOZOIDS.

DR. C. HEITZMANN directed attention to the following facts, which he had observed in examining specimens of urine. In one case urine was brought from a man who, in consequence of long-continued loss of sperm through unsexual intercourse with a woman, became impotent, and suffered from *spermatorrhea*. The urine contained a large amount of spermatozooids, which, instead of having the oblong, broad head, and beneath this the two lateral thickenings (the latter being a common occurrence on human spermatozooids), exhibited a thin head, surpassing the tail in width very little only. The motion of the tail is evidently due to contraction of the living matter, which builds up the head in the shape of a reticulum, and is connected with the tail, like as the cilia are in ciliated epithelia. In the case under consideration, motion of the tails was completely absent, though the urine was freshly passed. The case would indicate a local exhaustion of living matter in the testicles, produced by long-continued over-production.

In a second case the urine contained a large amount of pus-corpuscles and spermatozooids. The latter could be traced in all stages of transition into pus-corpuscles. There were spermatozooids with both moderately and much enlarged heads, and pus-corpuscles with single tails—motionless—fully corresponding in size to those of spermatozooids. Not infrequently two pus-corpuscles were connected by means of a single tail, and in the midst of the tail there was present a larger granule of living matter. The question, whether a mere immigration or a real transformation of spermatozooids into pus-corpuscles had taken place, could be satisfactorily settled in favor of the latter occurrence. The disease, although the patient had been examined repeatedly by surgeons both abroad in this country, never was recognized until a single, thorough microscopic examination allowed the diagnosis: suppurative of, or new-growth (perhaps *polypus*) in one of the spermatic vesicles. This diagnosis was afterward fully corroborated by the attending surgeon, Dr. L. Weber.

DR. HOWE asked Dr. Heitzmann if he believed the movement of the spermatozoid due to contraction of the reticulated structure which he had described as existing in the head.

DR. HEITZMANN replied that he did.

DR. HOWE asked why the contractions did not produce changes in the shape of the head, the same as they produced changes in the shape of the white blood-corpuscle.

DR. HEITZMANN replied that change in shape did not necessarily follow, because the living matter at the same time had given to the head a firm covering, which prevented it from changing its shape. It was like the nucleus generally, which did not change its shape, although the matter in the cell-body was constantly modifying the external outline of the cell. The white blood-corpuscle changed its shape because its cell-membrane was so exceedingly thin.

DR. J. C. PETERS remarked that Cohnheim and others recognized change in the form of the nucleus.

DR. KEYES remarked that, while he did not question the observation of transformation of spermatozooids into pus-corpuscles, he regarded it as a peculiar degeneration of the testicle that was accompanied by sweating of pus through the *vas deferens*.

DR. HEITZMANN remarked that the spermatozoa, as usually seen, had no such shape as those which he had described. In the testicle their form was very much different. There they were simply compact

formations—large granules with a relatively indefinite tail. The mature condition of the bodies we did not see, except in the seminal vesicles.

DR. KRYER remarked that he regarded it as *prima facie* evidence that a patient had disease of the seminal vesicles when a gelatinous mass of material, having pus-corpuscles entangled in its meshes, was expelled from the urethra. Those cases usually were not diagnosed. His method of examination in a suspected case was to have the patient urinate; then introduce the finger into the rectum, and press upon the vesicles from behind forward, and then have the patient urinate again, and catch the first tablespoonful discharged. In that manner he had been able to obtain spermatozoa with pus-corpuscles, when otherwise such evidence was lost.

TAPE-WORM.

DR. E. H. M. SELL presented a specimen of tape-worm that had been removed by the following plan of treatment:

B. Pumpkin seeds 3 xx.
Sugar..... grs. cc.
Ethereal ext. of malefern..... 3 ij.
Decoction of pomegranate root.. 3 x.

M.

Ten grains of calomel were administered, after which the patient fasted for twenty-four hours, taking nothing except slippery-elm tea. One-half of the above mixture was then given in four equal doses, at intervals of fifteen minutes, and, if it did not produce catharsis within two hours, prompt purgation was produced by either castor oil or rochelle salts. By that plan he had never failed to remove the parasite. The second dose was to be given in case the first was rejected.

The Society then adjourned.

Stated Meeting, June 11, 1879.

DR. J. W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

INFANTILE UTERUS.

DR. HEINEMAN presented an undeveloped uterus removed from the body of a girl, *et. 17* years, who was otherwise well developed, with the exception of entire absence of mammary glands and hair on the mons veneris, and who died in consequence of an injury. The woman had evidently menstruated, because a recent corpus luteum was found, and fully developed Graafian follicles.

INDENTATION OF THE ILEUM, WITH DESTRUCTION OF THE PERITONEAL AND MUCOUS COATS.

Dr. Heineman presented a second specimen by favor of Dr. Erskine Mason.

Henry Damm, 45; Germany; widower; cooper; entered Roosevelt Hospital June 1, 1879. Has had a small oblique, inguinal, reducible hernia for twelve years. Two months ago Wood's operation for radical cure was performed. Had no subsequent trouble with the hernia until three days ago, when it again entered the sac, and since has been irreducible.

The following morning he began to suffer from pain in abdomen, which has continued with increasing severity. Vomiting frequent, but not stercoraceous. Bowels moved freely yesterday. No urine passed for last twelve or twenty-four hours.

On examination, a small globular tumor as large as an orange, was found occupying right side of scrotum above the testicle; tumor was dull, almost flat on percussion, very tense and distinctly fluctuating. He

complained of severe pain in abdomen, which was slightly tympanitic, and very sensitive to pressure.

Operation by Dr. Mason. Taxis failing, the sac was opened, a narrow constricting band found in the body of the sac situated half an inch below external abdominal ring, which was divided, and a small knuckle of healthy appearing intestine readily reduced.

June 2d.—Pain; tympanitis increasing; respiration 32.

June 8d.—Dyspnoea; abdomen sensitive to pressure; pulse feeble, rapid, 160; patient sinking.

June 8d.—Patient died at 4.30 A.M.

Autopsy, June 8, 1879.—Brain not examined.

Heart: Slight thickening of aortic and mitral valves.

Lungs: Old adhesions, well marked congestion of lower lobes of both lungs; emphysema and chronic bronchitis.

Spleen and kidneys normal.

Moderate amount of turbid serum in peritoneal cavity, with fibrin and pus coating the peritoneum everywhere, but most abundant between liver and diaphragm.

Intestines: Stomach and intestines distended with gas; peritoneal surface congested, and coated with fibrin and pus. Near termination of small intestine a portion of ileum was found with thickened peritoneal surface, the seat of old and repeated attacks of inflammation. A knuckle of ileum about eight inches from ileo-cæcal valve had been recently incarcerated and strangulated in hernial sac. This was not gangrenous, had been wholly replaced in peritoneal cavity, and was slightly adherent to the edges of the sac by recent adhesions.

The cavity of the sac was narrow, but pervious down to its end in the scrotum. The strangulated portion of ileum presented a well-marked indentation on both peritoneal and mucous surfaces.

Dr. Heineman remarked that the two points of interest in the specimen were: *first*, the condition of the hernial sac of Wood's operation; and *second*, the condition of the intestine with its indentation, and destruction of peritoneal and mucous coats. How was destruction of the internal and external coats of the intestine at the same time to be explained?

DR. LANGE remarked that while peritonitis was doubtless the cause of death in this case, there were many cases in which death occurred after herniotomy, because of reflex paralysis of the heart produced by tympanitis. In such cases there was *no* high temperature, but rapid small pulse and rapid respiration.

Dr. Lange then referred to a case in which those symptoms were present, and the life of the patient was saved by puncturing the intestines and allowing the gas to escape.

DR. HOWE thought the indentations in the intestine could be explained by the fact that stricture having lasted for some time, ulceration of the mucous surface occurred as a necessary consequence.

DR. HEINEMAN thought that Dr. Howe's theory did not explain the indentation in the peritoneal coat of the intestine.

DR. ERSKINE MASON remarked that, so far as he knew, this was the first case in which strangulation of the gut had occurred after Wood's radical operation for the cure of hernia. He had seen strangulation occurring after other methods of operating.

In the present case the patient was operated upon for radical cure about three months ago, and there was no return of the hernia until three days before strangulation occurred. Probably the operator regarded the operation as a perfect success; but the final result showed that in all operations for the radi-

cal cure of hernia there was danger that the sac might not be entirely obliterated—simply a partial obliteration. If that was true, the patient was left in a more dangerous condition than he was in previous to the operation, providing he did not wear a truss. Here was a sac which was constricted at a point from one-half to an inch below the external ring, and the constriction was of the same form as that which occurred in patients who had worn a truss for a long time. Three days after operating upon the patient from whose body the specimen presented was taken, he was called to operate upon another man who had worn a truss for twenty-five years, and the constriction was in precisely the same locality, and the sac was in a precisely similar condition. In one case the constriction was made by Wood's method, and in the other by the pressure of the truss.

OSTEO-MYELITIS OF THE HUMERUS—EXSECTION.

DR. LANGE presented a patient who, last September, was attacked with osteo-myelitis affecting the upper part of the right humerus. At the same time the region of the left hip became painful and swollen; but in that place the disease resolved. In the humerus the disease progressed, and the patient had high fever for several months.

Dr. Lange saw her about five weeks after the beginning of the difficulty, when several incisions had been made and the shoulder-joint was in a condition of suppuration. For three months altogether the patient was confined to her bed, became emaciated and feeble, and several weeks were required to get her into a condition proper for an operation.

The operation, when performed, consisted of excision of the entire articular surfaces of the shoulder-joint, and at the same time necrotomy. It was done bloodlessly and antiseptically. He was surprised not to find a large sequestrum, and only a superficial one near the insertion of the deltoid muscle. The head of the humerus was fastened in the glenoid cavity by bony growth, so firm that he was obliged to use a chisel and hammer to remove it. The operation was not followed by fever, and two weeks after, the patient left her bed. The wound healed entirely by first intention, except where a drainage-tube was introduced, and then discharged only a small quantity of watery fluid. The operation was performed six weeks ago, and passive motion had been commenced, aided by galvanism. The formation of a new head of the humerus was apparently very good; and perhaps the good result was in consequence of preservation of the upper part of the tubercles of the bone and the insertion of muscles.

The interesting points in the specimen of bone removed were, that the epiphyseal cartilage was entirely destroyed, except at two places; the cancellous tissue had large spaces in it; the medullary canal was enlarged opposite the epiphyseal line. There was rarefying osteitis, and at the same time ossifying periostitis. The medullary canal was filled by firm, dense, fibrous tissue, which sent tender processes into the spaces in the cancellous tissue. In the central parts were yellowish spots which looked like pus; but no pus was present, and only large fat-cells, together with large cells filled with fatty corpuscles—giant-cells—together with blood-vessels.

In this connection Dr. Lange referred to a case in which, by microscopic examination, micrococci and bacteria were found in the pus in such abscess without external opening. The pus for examination was obtained by means of a needle.

(To be continued.)

Correspondence.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

I.

THERE are some physicians who believe that the Code of Ethics was made solely for the benefit of the older members of the profession who have secured a position. I used to think so when I was younger. Now, I believe that the next thing to looking after your own interests and seeing that you have a fair show in the race for professional success is to stand up for medical ethics through thick and thin. Without shocking any personal modesty, I may say that I have followed out this principle with a good result. There is such a thing as being charitable to your brother, and if you can only show that charity to advantage before a third person, you are quite sure to benefit yourself, especially if the third person is in need of medical advice. But all the while you must keep a single eye to the glory of the Code, and recollect that he who plays with fire must have a long reach. As I said before, I never lose any opportunity of speaking well of a professional brother when I am accidentally called to see his case. To this, in fact, I owe most of my success in practice; for not only will his patients force themselves upon me, but he will call me in consultation to others. As there are not a few who would like to know how this is done, I may perhaps flatter myself that a little detail of personal experience may not be uninteresting. By way of premising, let me say that I am particular to cultivate younger men and help them along in practice as well as I can. To illustrate this particular point, I will refer to an instance or two that occurred in the earlier practice of Pine Ridge, which showed the benefits of my magnanimous spirit.

One morning, in driving through the village, I noticed the bright new sign of Dr. White. I smiled at inward satisfaction, and resolved to be his friend. At once concluding that I had more business than I needed, and that there was plenty of room for the new man, I resolved to call on him and welcome him to the town. This was done, and, to my surprise, he stated that he had not been led to expect such courtesy. The evening passed pleasantly, and, notwithstanding we were interrupted by my servant with fifteen calls for me, to which I must attend before retiring, the festivities were kept up until a late hour. As I left him I just happened to think of my patients, when he pitied me and charitably wished himself in my place. His young and innocent smile appealed to my heart, and soon after, when dropping to sleep on my couch, and thinking of his surprise at my fifteen extra patients, I resolved to be his friend. As he was working principally for a reputation, I commenced my good deeds by recommending to him such chronic cases as I did not want, and who could not pay. I introduced the first patient by note, and received a gracious and appreciative reply, which hangs, duly framed, in my office. But this is by the way.

I dropped in every now and then to see him, and he being always in, I seldom lost the opportunity for a quiet and confidential talk. He was well prepared to practise, having studied two full years and attended in that time four courses of lectures, received two prize medals and a certificate for a month's attendance on a post-graduate course. My soul warmed at the op-

opportunities I should have of recommending him accordingly to some of the good-paying patients I should send him. It may be well to state here that, at the outset of my acquaintance with him, I made him a present of a copy of the Code and secured his membership to our county society, thus ensuring his professional standing. Need I say that, with all these advantages, the young man succeeded? He did. Is it a wonder that I should be gratified? Hardly. And could I be blamed for giving him help when he did succeed? But I proceed with my illustrations, and as details of cases are sometimes more instructive than generalities, I make no apology for introducing one or two here.

One summer afternoon I was driving past Smith's, and was asked by Mrs. Smith to look at her son Harry. Notwithstanding I was in a great hurry, and had to visit thirty patients before supper, I consented to see the patient. I at once told the mother that the child was very sick; that it had evidently been left too long without proper treatment, and chided her for neglecting to send for me before. When she informed me that Dr. White was attending the case, I at once became mortified at my indiscretion, and, for a time, could not see my way clear to vindicate my brother's good name and uphold professional honor. Of course, I at once backed down, and openly confessed that I did not know that Dr. W. was in attendance; that he was a good fellow, a friend of mine; that I was sorry I had said anything against him; that he was probably right—at least, I hoped so; that it was against our Code of Ethics to criticise each other's treatment, to destroy the confidence of our patients, or in any way strive to replace each other. The child vomited at this time, and I arose to retire, declining to have anything to do with the case until Dr. White should be sent for. The appeals of the mother brought me back, and I held the child's head. At the same time I whispered words of kindness in his ear. I informed the mother if it were my case I should have the child seen to at once, and I urged her to send for Dr. White. I found a good opportunity to say to her that Dr. White, although a very young man, with but little experience, was remarkably apt; that although he was brought up as a carpenter, he had learned the science of medicine in two years, and that such enterprising men should be encouraged. Politely declining to have anything more to do with the case, I gracefully retired, promising to stop myself and send Dr. White around. I did so, telling him what good service I had done him, and how necessary it was in all our relations to prevent ill-feeling and jealousy by sticking to the Code and acting squarely with each other. I heard no more of the case until that evening, when I was summoned to meet Dr. White in consultation. I informed the father who summoned me that I was very much pressed for time, but that I would, nevertheless, do all I could to help my friend White.

Having arrived at the house, Dr. W. examined the patient first, but quickly yielded to me. Anticipating that the case would be a difficult one for diagnosis, I had brought all my instruments of precision with me. Unfortunately Dr. White had none of these, but I believed it to be my duty to give the patient every chance. I examined the eye with the ophthalmoscope and demonstrated to Dr. W. and the father of the child the commencement of a choked disc. Dr. W. had never seen such a thing before, and he was honest enough to say so before the family. The ear speculum showed a slight opacity of the tympanum due to thickening around the malleus and slight oedema over

the site of the tensor tympani muscle. The laryngoscope disclosed patches behind the uvula and a slight paralysis of the right vocal cord. The cephalic temperature was slightly increased ($\frac{3}{10}$ of a degree) over the right or affected eye. A slight aortic murmur, a crepitant râle, at the base of the lung proved the value of a stethoscopic examination. The liver was normal, but, on account of the relaxation of the umbilical ligament, hung a little low. Thermometer in the rectum marked 101° F. Urine collected to be afterward examined. Tested on the spot by a urinometer, much to the satisfaction of the father, who was pleased with the delicate action of the instrument.

The rectum being examined, some ascares vermiculares were found, indicating a faulty nutrition of that point. The worms were slightly asphyxiated. Unfortunately, Dr. White had not examined this part of the body, a fact for which he was quietly blamed by the mother, who said from the first she "thought it was worms." I politely informed her that the doctor had done everything that was really required, and that my examinations were necessary only for the sake of clearing up any doubtful points. In fact, it was only called for on the ground that experience had taught me that it was best to be on the safe side. The child having some diarrhoea, I asked to see the passages, remarking casually that now we should have a clue to the whole trouble. The mother had not saved the passages. Unfortunately for me, before I thought, I asked the doctor what was their character, and he was forced to reply that he had not examined them. Determined to shield the doctor, I changed the subject by remarking that after all it might not have been of any importance, only I should like to have seen them for my own satisfaction—a matter so purely selfish that I was forced to smile as I referred to it. I forgot to mention that the prepuce of the child was slightly elongated; that he had a strong liking for sugar and peanuts; and was occasionally peevish when crossed.

While I was washing my hands the father was examining my instruments and asking the doctor all sorts of questions as to their use. I confess I was somewhat surprised at the latter's ignorance, and made an excuse to give the necessary explanations. This was done more to turn the subject of conversation than for any desire to satisfy the inquisitive parent.

After tucking Harry under the chin and bidding good evening to the parents I retired with the doctor for formal consultation. We agreed that it was a simple case of intestinal irritation, and I suggested a change from rhubarb and soda to chalk mixture well sweetened and highly flavored. But, said Dr. W., "How about the choked disc?" I replied that such, as well as the aortic murmur and increased cephalic temperature, was due to a slight congestion of the pons varolii which was reflected through the vasomotor system of those parts. He was satisfied, and thought it best to give such a diagnosis to the mother. I agreed, but he became confused in his explanations and I had to help him out. While Dr. W. was in with the child prescribing the new medicine, I started to go, when the father waylaid me in the hall asking all sorts of questions about the case. I informed him that the child would probably get better now; that Dr. W., who although young was willing to learn, had agreed to change the medicine, and that if he was careful in studying the new symptoms he would not need any further assistance. While doing this I impressed upon him the fact that I was a great friend

to Dr. W.; that he was an exceedingly apt scholar, and, for his opportunities, he was the safest doctor of his age that I knew. Just then the doctor came out of the room, and I kindly put my arm in his, we walked out together, and I confidentially informed him that although his position was a little shaky in that family, I had done my best in accordance with the Code to hold up his hands and say what I could for him as a professional brother. He thanked me, and we parted on the corner.

When I arrived at my office the father of the child was waiting for me. He requested me to see the patient again that night. The child had vomited since the visit, and the parent did not believe that Dr. W. understood the case. In fact he desired me to attend it henceforth. This at first I flatly refused to do, but how I managed it afterward, to the satisfaction of all hands, will be seen in my next. ***

PINE RIDGE ON THE HUDSON.

SYPHILITIC PERIOSTITIS OF THE CRANIUM.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The following case occurred during the past winter, and was treated in the wards of the U. S. Hospital at Jefferson Barracks, Mo., by Surg. E. P. Vallum, U.S.A. The subjoined is a synopsis of the history, symptoms, and treatment:

Select recruit W— presented himself at "sick-call" on the 28d of Jan., 1879, and requested that something should be done to relieve him of a sharp, lancinating pain, which began above the left eye and extended backwards in the course of the temporal ridge. There was an absence of swelling, and but slight tenderness on pressure could be detected. This being his first attack, and several cases with like symptoms and of malarial origin having been previously treated successfully with large doses of quinine, and hypodermics of morphia at the seat of suffering, he was put on a similar line of treatment. This, however, did not bring about the results which had been anticipated, and on Jan. 26th he was admitted into the hospital, the pain still continuing with unmitigated severity. The hypodermics afforded only temporary relief, and the quinine had apparently no effect in promoting a cure. The pain, which was at first sharp and neuralgic, was now also at times dull and gnawing. In addition, a swelling had shown itself over the affected area, the left temporal region being much fuller than the corresponding surface on the opposite side. The swelling was but slightly tender, and was firm and hard to the touch. The left eye was perfectly normal in appearance and in function. The treatment for several days after admission remained unchanged, except that small blisters were applied to the tumefied surface, which was afterwards dressed with simple cerate and morphia. No improvement followed, and ferri et quin. citrat. was substituted for the quinine, the hypodermics and blisters being kept up. This course of treatment was pursued till Feb. 9th, without influencing the malady in the slightest degree. The pain was fully as agonizing as at first, and was continuous, with paroxysms of great severity in the latter part of the night and in the early morning hours. Much sleep had been lost, and the general health was beginning to suffer, despite the employment of the tonics mentioned, and the allowance of a generous diet. A careful inquiry was now made to learn something of the previous health of the patient, and it was ascertained that he had suf-

fered from primary syphilis *ten years* before; but, as no constitutional symptoms had ever shown themselves, he had always considered himself perfectly cured of this trouble. He at that time resided in New York City, and was attended by two physicians—one of them a distinguished author and authority on venereal diseases—both of whom pronounced the initial sore a "chancroid." Suppurating buboes followed in both groins, though efforts were made to abort them with iodine and blisters. A purely local treatment was adopted throughout, and an apparent cure resulted in a couple of months. After obtaining the foregoing history, our patient was put on a specific treatment, consisting of hydrarg. proto-iodid., and pot. iodid., in alternation. The ferri et quin. citrat. and the blisters were continued, the abraded surface of the swelling being dressed with ung. hydrarg. Immediate improvement was noticed, and no change in the treatment was made from that date (Feb. 9th) till his discharge from the hospital "cured" on March 29d. All pain and tumefaction were now gone, and the general vigor of the body was almost restored, the patient remarking that he felt "perfectly well." An examination instituted to determine whether or not any evidence of syphilis existed in the bones or viscera, gave negative results. No nodosities were discovered in the clavicles, sternum, or tibiae; and the glands behind the elbow and the neck exhibited no appreciable enlargement. Eruptions on the skin and sore throat had never occurred, and iritis and alopecia had not at any time been experienced. Still, despite these facts, I think that the syphilitic nature of the affection was satisfactorily made out; and though ten years had elapsed since the occurrence of the primary sore, I feel quite confident that the relation between it and the recent outbreak was that of "cause and effect." Finally, when we remember that it was a "chancroid," which many syphilographers say never produces secondary or tertiary manifestations, but which evidently in this case was the remote but potent factor in causing systemic infection, we look upon the case with increased interest, and consider it of sufficient rarity to merit this report.

I am, very respectfully, etc.,

JOHN J. KANE,
Asst. Surgeon U. S. Army.

NOTES ON A CASE OF EPILEPSY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—S. P.—, colored girl, age twelve, well-grown and robust, native of Virginia, and raised on a farm in a section where epilepsy is rather frequent. Epileptic paroxysms commenced at the age of eight, at the rate of one in two weeks, generally at night; gradually increasing in frequency until April 1st, when they averaged four per day. At that time there was a very free flow of saliva and considerable mental dulness; both had commenced and gradually increased with the paroxysms. In other respects there was nothing to note, the patient "enjoying good health." In this case the "aura" was well marked, and by grasping the arm tightly the seizure could be checked.

The case had been under the charge of two prominent country practitioners and had received the usual treatment, especially that of bromide of potassium, with no favorable result, and had been given up as hopeless, as "she had experienced more than five hundred seizures."

I concluded to make trial of bromide of potassium

in combination with hydrate of chloral, using just enough of the hydrate to strengthen and cause the bromide to act promptly. I had used this combination with excellent results in cases of wakefulness where the bromide had ceased to act.

April 1st the patient commenced taking the following:

B. Bromide of potassium..... 3 iij.
Hydrate of chloral..... 3 iij.
Water f 3 vij.
M.

8. Half-teaspoonful on rising and retiring, the dose to be doubled at the end of first week.

Up to July 1st the patient had experienced only three paroxysms, two of these occurring in the first week after commencing the treatment. At that date the mind was much improved and the flow of saliva had decreased to near normal, while in other respects the patient was in excellent health.

Such a favorable result is remarkable, and I make the report at this early date in order to draw out others who may have used the combination, or else induce others to make trial of it. I would like to hear of its trial in cases of the petit mal.

Very respectfully,

J. A. TANNER, JR., M.D., U.S.A.

HARRISON SQUARE, BOSTON, MASS.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 17 to August 23, 1879.

PERIN GLOVER, Lieut.-Colonel and Surgeon, Medical Director of the Department. Granted leave of absence for one month on surgeon's certificate of disability. S. O. 160, Dept. of the Missouri, August 20, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 23, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 16, 1879.	0	18	37	4	23	14	5	0
Aug. 23, 1879.	4	12	34	6	26	10	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from August 19th to August 26th, inclusive, was 203, and the number of deaths that occurred was 59. The total number of cases for this year to August 27th is 778, and the total number of deaths 217.

PRIZE ESSAY ON DIPHTHERIA.—Her Majesty, the German Empress and Queen of Prussia, offers a prize of 2,000 reichmarks (\$480) for the best essay on "the essence of diphtheria and the results of treatment of the disease based upon knowledge of the nature of the affection." The prize will be given only

for such work as contains important new facts regarding the essence of the disease, but particularly concerning its mode of propagation and the prevention of the same. The essay may be written in German, French, or English, and must be forwarded to B. von Langenbeck, Professor, Berlin, N. W., 8 Roonstrasse, before the first of December, 1880. The prize will be awarded at the first meeting of the German Surgical Congress in April, 1881. Each essay must be marked with a motto, and the same motto must be placed upon an accompanying envelope that contains the author's name.

The committee consists of Professors Klebs, of Prague; Liebreich, of Berlin; von Nægeli and Oertel, of Munich; Thiersch, of Leipsig; Virchow, of Berlin, and von Langenbeck, of Berlin.

ROUTINE USE OF THE OPHTHALMOSCOPE IN CEREBRAL DISEASE.—Dr. J. Hughlings-Jackson asserts in the *Medical Press and Circular* that there is nothing in medical ophthalmology more important than the fact that a patient who has acute neuritis can read the smallest type and may not know that his sight is in any way defective. This claim he has made for several years, and now presents many authorities to support it. As a consequence of the fact, he urges the necessity of a routine use of the ophthalmoscope, lest the disease be overlooked in its early stage, and we lose an important help in diagnosing other pathological changes.

A NOVEL METHOD OF CONTROLLING HEMORRHAGE IN AMPUTATIONS OF THE HIP has been introduced by Mr. Davy, of London. It is done by means of a wooden lever about two feet long, measuring an inch in diameter at either end for six inches of the length, and being only four-fifths of an inch in diameter for the remainder. It is turned perfectly smooth, the ends being well rounded. It is introduced into the patient's rectum sufficiently far for the end to rest in the hollow opposite the sacro-iliac synchondrosis, between the psoas muscle and the base of the sacrum, where it is made to rest on the common iliac artery, controlling the blood perfectly. It has been used successfully four or five times.—*Chicago Med. Journ. and Examiner.*

INFLUENCE OF MARRIAGE UPON HEALTH AND MORALITY.—Dr. Bertillon, a French savant, has published some very interesting statistics in regard to the influence of marriage upon the human race. He has studied the mortality bills of every country in Europe, so that his figures are more exhaustive and his conclusions more striking than any previously published.

He finds that "a bachelor of twenty-five is not a better life than a married man of forty-five; that among widowers of from twenty-five to thirty the rate of mortality is as great as among married men of from fifty-five to sixty." In other words, celibacy ages a young man at least twenty years, and widowhood still more. In France the rate of mortality among married men, between twenty and twenty-five years of age, is ten per thousand, and among bachelors of that age sixteen per thousand, and among widowers nineteen per thousand.

In regard to criminal acts, these occur about 50 per cent. oftener among bachelors than married men, and 25 per cent. oftener among spinsters than married women. Suicide is also much less frequent among the married. In fact, all the statistics show very conclusively that the married state promotes health, long life, and morality.—*Lancet.*

DIPSOMANIA AND DRUNKENNESS.—Dipsomania is a disease of the nervous system, akin to epilepsy and

insanity. It implies a degeneracy of the intellect; hereditary influence has a large share in its production; in it there is generally a complete abolition of the moral sense, as shown by lack of shame, unrestrained licentiousness, deceitfulness and broken promises; it occurs sometimes as an acute disease, it often appears in periodical attacks like epilepsy, but it most frequently exists in a chronic form. It occurs oftenest amongst the higher classes, and champagne is of all drinks the most active as a cause; and drunkards, on the other hand, are persons who when they drink do so to a complete state of intoxication, but when they recover, are wretchedly ill and quite conscious of their moral wrong. They yield rather to external temptations than to internal cravings. They generally come from the lower classes.

In treatment the above distinctions should be regarded. Dipsomaniacs should be treated as insane persons, and the State should take charge of them. They should be committed to asylums for a year at least, and if possible for three years. There is but one way to obtain a cure, and that is the absolute withdrawal of alcohol. The only drug of any use is bromide of potassium.—*The Practitioner*, June, 1879.

THE CÆSARIAN OPERATION IN LOUISIANA.—Dr. R. P. Harris has recently collected, with much care and trouble, records of all the operations of gastro-hysterotomy that have occurred in Louisiana, and the statistics give a very favorable showing for that State. Nineteen cases are reported. Of these, 73½ per cent. of the women, and 42½ per cent. of the children were saved. In six instances the operation was performed early, and here all the women and four of the children recovered. In ten cases where labor was prolonged three women and all the children died. These statistics are particularly valuable in showing the real mortality of the operation, because they include all the cases and not those alone which had previously been published. The danger in drawing conclusions from the cases voluntarily put on record is shown by the fact that of the 108 collected cases in the United States only 62 have even been published, the remaining being, of course, often fatal ones. The statistics given show that about three-fourths of the women and two-fifths of the children recover; also that the early operation is very much more favorable both for mother and child.—*N. O. Medical and Surgical Jour.*

MUSCLE-BEATING IN INFANTILE PARALYSIS.—A muscle-beater manufactured at St. Petersburg and on exhibition at Paris, has been introduced into some orthopædic establishments as a supplement to massage. Besides this instrument, which is called Klein's muscle-beater, there are employed oval palettes four inches long, two and a half inches wide, covered with velvet and attached to a handle seven inches long. Two of these are used, striking the limb alternately. The palettes are better than the Klein's muscle-beater, but neither will take the place of rubbing.—*British Med. Jour.*

THE PURE RUBBER BANDAGE.—In a letter to *The Lancet*, Dr. H. A. Martin reiterates his claims for the rubber bandage in the treatment of chronic ulcers. There are few, we believe, who have tried them who have not met a good deal of disappointment, and anything but uniformity in the results. At some of our city hospitals it is roundly asserted that those who attain such extraordinary successes mistake granulation for cicatrization. Dr. Martin contends, however, in his letter, as he has done elsewhere, that failures are due to the use of ointments and washes

with the bandages, or to the bandages themselves being improperly made. The most injurious, and perhaps most frequently used wash is one containing carbolic acid. And this drug is also employed in making many of the bandages, especially the English ones. The bandage should be composed of pure rubber, with the minimum amount of sulphur necessary to vulcanize it. Dr. Martin is undoubtedly right in discountenancing the employment of the various irritating washes and applications. To claim, however, that with the pure gum the days of the chronic ulcer are over, is going much farther than facts will justify.

NEW REMEDIES.—Dr. J. J. Mulheron, of Detroit, gives additional testimony to the value of eucalyptus globulus in subacute cystitis. He uses it in doses of ℥xx. of the fluid extract every four hours. Dr. A. S. Rockwell, of New York, reviews the history of *Viburnum prunifolium*, or black haw, and as the result of the experience of others and himself, endorses its use in certain kinds of dysmenorrhœa. The cases in which the drug is indicated are those of delicate nervous women, in whom the pain is due to slight flexions, slight endocervicitis, partial stenosis, or where it is neuralgic in character. Black haw may be classed as an anodyne antispasmodic and tonic. It is given in infusion, tincture, or fluid extract, the dose of the latter being about 3 ss. every one or three hours.

Dr. John B. Rice relates a case in which the tincture of *Thuja occidentalis* seemed to cure a case of epithelioma of the lip. The patient took fourteen drachms daily. This drug was first brought into prominence by Dr. J. R. Leaming, of New York, in 1877, and he has had similar successful results in his own practice. It is not pretended that it is always a specific, but it seems to be often very beneficial and occasionally even curative in these affections.

The new laxative *Cascara sagrada*, about which there has been much quarrelling in western journals, seems to be taking its place as a tolerably useful remedy.—*New Preparations and Mich. Med. News.*

HYDROPHOBIA.—The repressive measures usually adopted by municipalities to prevent hydrophobia are those, according to Dr. Blatin of Paris, most likely to cause the disease. This is especially true of muzzling dogs. The practice of killing dogs the moment they are suspected of being mad is still more absurd. It is stated by the Council of Hygiene of Bordeaux that the premonitory stage of rabies is harmless. It is known that mad dogs live but seven days, which is not a very long time for the bitten person to wait in order to learn with certainty his fate.

ST. LUKE'S HOSPITAL.—Dr. Beverly Robinson has been appointed Visiting Physician to this institution, to fill the vacancy caused by the resignation of Dr. Wm. M. Polk.

LESSONS IN GYNECOLOGY.—Our attention has been called to an error in the review of Dr. Goodell's "Lessons in Gynecology." The reviewer says, "nowhere has even mention been made of the name of Emmet," etc. This is an error which we cheerfully correct by directing attention to page 182, where the parenthetical sentence, "Emmet, to whom we owe all we know about the operation," etc., can be found.

BOOKS RECEIVED.

PROCEEDINGS OF THE CONNECTICUT MEDICAL SOCIETY, 1879. Hartford, Conn.: Lockwood & Brainard.
TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK, 1879. Syracuse: Truax, Smith & Bruce.

Original Lectures.

SPASMODIC INFANTILE PARALYSIS— SPASMODIC INFANTILE HEMIPLEGIA.

A CLINICAL LECTURE DELIVERED AT THE PHILADELPHIA HOSPITAL.

BY CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

GENTLEMEN:—The affection to which I will first call your attention this morning is a form of infantile pseudo-palsy, of which you will find little or nothing said in your text-books. Cases reported in journals have also been few, although the spasmodic spinal paralysis of adults has been largely discussed by neurological contributors during the last few years.

B. D., set. 4, is a little boy from the children's asylum connected with the Hospital. As nothing is known of his relatives, no previous history can be obtained, and we will have to be contented with a study of his present condition.

He has a fair-sized head, but it is flattened a little more than usual from the vertex forward. The fontanelles are closed, but the lines of the sutures are projecting and rough. Both pupils are dilated, and, according to the nurse, they are always in this state. He has left internal strabismus; he has no facial paralysis; he can protrude his tongue without difficulty, and he talks pretty well for a child of his age. He seems to have fair intelligence, but he cries and laughs on slight provocation.

His back seems weak, and tends to project backward as he sits on the chair; he has, however, no real spinal curvature. He has good use of his arms, but they show a *tendency* to flex at the elbows; they frequently get into a semi-flexed position when he is quiet, and sometimes resist extension slightly, but they are not rigid, and he can straighten them himself without special effort.

He is unable to stand alone, and if attempts are made to force him to do so he becomes much alarmed. If not held he falls at once to the floor. Supported by the hand, or from behind, he stands in a peculiar position. His legs, from the knees upward, are tightly drawn together; below the knees, they are a little apart; the heels are kept slightly elevated; the thighs are bent on the pelvis at an angle of about 120°, and the legs have about the same inclination on the thighs; the feet turn inward slightly. The flexors and adductors of the thighs, and the muscles of the calf, feel hard, and are in a condition of tonic spasm. He walks in a curious fashion, keeping hold of the hands of the nurse; his legs remain semi-flexed at the knees; he steps on the front part of his feet and toes, his heels never touching the floor. As the leg and foot of one side are advanced, they tend toward and sometimes are carried over the other limb; sometimes, as he puts forward the right foot, the toes of the left will get under the right heel, and *vice versa*; the limbs, in walking, have a tendency to become entangled; the flexors and adductors of the thigh seem to be always acting unduly; the feet are kept in a condition of slight extension and adduction.

His body appears to be abnormally long in proportion to the length of his legs. His hips are narrow, and the glutei muscles show some want of develop-

ment. The thigh and leg muscles are fairly developed, particularly the flexor groups. Electro-contraction is generally well retained. Sensibility is good. The limbs are not cold nor changed in color; the joints are free from adhesions; the prepuce is not adherent and can easily be retracted.

When he is sitting or lying down his legs can be straightened by the exercise of some force, but they immediately tend to return to their state of abnormal flexion and adduction.

Lightly tapping each patellar tendon, the corresponding foot and leg is projected quickly and somewhat forcibly forward. I can produce the same phenomenon by tapping upon the lower part of the tibia. Abruptly forcing the foot into flexion, and smartly striking the tendo-Achillis, no tremor or oscillation is set up, but the spasm in the flexors and adductors is increased.

Before discussing this curious case, I will read you the notes of a private patient, many of whose symptoms correspond closely to those of the child before you.

J. P., set. 4, was apparently very healthy until three months old, when he had a severe attack of vomiting and convulsions. Several other children in the same family have had convulsions during infancy. When a year old the patient had pneumonia, during which his mother says he had "inward spasms." For more than a year after this his bowels were much constipated, never being opened without an injection. During his entire infancy he was very fretful and irritable. When he began to use his arms and legs his parents noticed that he could not grasp things properly and could not balance himself on his feet. He has never been able to stand or walk alone.

His condition has not materially changed during the six months that I have had him under observation.

He has left internal strabismus, which his mother thinks dates from birth. His face has a smooth look, the lines not being well marked. He has, however, no paralysis of the facial muscles. He can talk quite glibly and seems bright and intelligent; but it is often difficult to fix his attention upon a special subject. He usually carries his head thrown backward slightly. His back seems weak.

He carries the left arm strongly flexed at the elbow, and flexed and adducted at the wrist, the fingers and thumb being at the same time thrust apart and slightly bent backward. His right arm, forearm, and hand present the same abnormal contractions, but they are not nearly so marked as on the left side.

Both legs exhibit a strong tendency to flexion at the knees. The thighs are adducted, but not forcibly. His feet are held slightly inverted and extended, the heels being drawn upward. The flexors are spasmodically contracted.

Catching hold of some one's hands to support him, he makes a timid effort to walk. He steps on the toes and balls of the feet, his heels not coming down. The legs do not straighten at the knees. The feet are kept wide apart. The limbs do not tend to interlock or to cross one over the other, as in the other case.

The muscles generally are firm and well developed. Those of the upper, outer, and posterior aspect of the thigh are particularly large and firm. Electro-contraction and sensibility do not appear to be changed. The patella-reflex actions are rather above than below the normal, and passive dorsal flexion does not produce clonus, but seems to increase the already existing spasmodic tendency and condition.

Both legs and arms can be straightened by forcible traction, but the flexors resist the effort, and on letting

go of the limbs they tend immediately to return to their condition of spasmodic flexion.

The legs show no vaso-motor or joint troubles. The functions of the bladder and bowels are naturally performed.

Let me now sum up the chief features presented by these two cases. Briefly they are as follows: Dilated pupils and internal strabismus; slightly weakened intelligence; in one case convulsions in infancy, in the other the infantile history not known; apparent weakness of the muscles of the back in both cases; marked state of tonic spasm of the lower extremities, chiefly affecting the flexors and adductors; a similar spastic condition in the arms in one case, and a tendency to spasmodic contraction in the other; inability to stand or walk alone; tendon-reflexions increased; no paralysis of bladder or bowels; retention of electro-contraction and sensibility; absence of vaso-motor changes or joint troubles.

The positive symptoms are certainly chiefly spinal. They would seem to indicate either a congenital or an acquired want of development of certain columns of the cord. As we have no loss of sensibility, no ataxia, no trophic or vaso-motor changes, but only disturbances in the domain of motion—spasm, paresis, and increased reflex—the lesion, whatever it may be, is probably one of the motor divisions of the cord, of the lateral or antero-lateral columns. You have a disorder of infancy and childhood analogous in many respects to the spasmodic spinal paralysis of Erb, which this author tells us is almost exclusively a disease of maturity, and whose pathology is probably properly indicated by the designation primary lateral sclerosis. Erb, indeed, remarks that from various observations which he has reported it would appear that spasmodic spinal paralysis may also develop itself even in *earliest childhood*, and we might then imagine the possible congenital defective development of certain divisions of the spinal cord. Part of the cases described under the name of spasmodic infantile paralysis may well belong to this class. The remarkable observation communicated by Seeligmüller, where four children of the same family were taken sick with amyotrophic lateral sclerosis, should also be placed here. (*Ziemssen's Cyclopadia*, Vol. XIII., p. 624.)

Is not the brain implicated in cases of this kind? The convulsions, lowered intelligence, strabismus, and dilated pupils might be supposed to point to cerebral involvement. The convulsions, however, may have been spinal or may have arisen from temporary causes, and intellect is not more seriously compromised than in many other children who have early lost the use of their limbs from spinal or peripheral disease. The ocular symptoms might be connected with spinal defect. You must not forget, however, the very frequent occurrence, even in the so-called systemic sclerosis of the spinal cord, of coincident cerebral lesions. You might have lesions in such cases in both brain and cord. It would not be impossible to explain the phenomena of spasm and paresis presented by these patients by a bilateral sclerosis and atrophy of portions of the cortical motor zones; but a primary spinal affection is, on the whole, more probable. Secondly, the cerebral centres of motion have, no doubt, become affected.

In St. Bartholomew's Hospital Reports, Vol. XIII., 1877, Samuel Gee, M.D., in a brief communication *On Spastic Paraplegia*, reports several cases similar in many of their features to these cases. He gives their chief characters as follows: Constant rigidity of legs, or of legs and arms, which increases when the limbs

are handled, and disappears under chloroform; the functions of the limbs impaired; the disease congenital or beginning in infancy; the affected muscles act well to faradism; the nutrition of the parts usually well kept up; general nutrition good; no tremor; intellect and sensation natural; no lesion of micturition; the back apparently weak in all cases; choreiform movements of the face occurred in two instances; in two a tendency to convulsions; painful cramps in the legs in one case. Gee gives these cases without note or comment.

Cases of spasm involving the muscles, the legs or arms, or both, somewhat similar to those I am describing, but of temporary duration, are sometimes met with among infants and children, as well as among adults. Dr. S. Weir Mitchell, in a lecture on *Spasmodic Disorders of the Legs*, published in the New York Medical Record for June 28, 1879, mentions some cases of this kind, and makes of them a distinct group due to obscure functional conditions, and in which the spasms seem to be temporary, and to constitute the sole objective symptom. One of his cases was a lad aged seventeen years, who, after exposure to intense heat, was attacked with headache, and subsequently with dull aching and extreme rigidity of the legs. The rigidity disappeared by slow degrees, and the boy was well at the close of three weeks.

Several months since, in consultation with Dr. Roland G. Curtin, of this city, I saw one of these curious cases of temporary rigidity or spasm. The patient was a girl thirteen years old. She was first taken down with pains in her limbs, apparently rheumatic in character. In a few days endocarditis developed; a mitral systolic murmur was detected. Soon, under treatment, the pains and cardiac symptoms improved greatly; but she now began to suffer from a troublesome capricious diarrhoea. About the same time the doctor noticed a stiffness in certain muscles of the arms and legs. These rigidities increased, and were accompanied by pains and aching in the limbs and joints; I saw her nearly four weeks after their first appearance. Her arms were held semiflexed at the elbows; her hands were slightly flexed and abducted at the wrists; both the extensors and flexors of the thighs were in a condition of tension, so that her legs were kept rigidly straightened out; the heels were drawn upward and the feet inward by strong spasmodic action of the calf-muscles; so far as the symptom spasm was concerned, the condition was much the same as that of my second little patient, differing from it only in degree. Pain or soreness in the affected muscles and around the joints was, however, a symptom not present in my cases of spasmodic infantile paralysis. In this case, as in the others, by the exercise of considerable force, the muscular rigidities could be overcome and the limbs extended or flexed; but after she had been handled in this way she suffered for several hours with more or less pain in the parts manipulated. In our infantile patients, pulling and hauling at their limbs does not seem to cause any pain, either at the time or afterward. In this girl the tendon-reflexes were exaggerated. Sensation was unaffected. She suffered considerably with headache. Her appetite was very capricious. She was highly anæmic. She had never shown any hysterical peculiarities. She was placed upon the nitrate of silver and opium, the one-sixth of a grain of each four times daily, and, what is most gratifying to report, immediately began to improve. In one week she was able to stand and walk a little; in two weeks the diarrhoea and spasmodic disorder had both disappeared; her general health also became good, and

Dr. Curtin has informed me within a few days that she is now, and has been for many weeks, right well.

Dr. Mitchell, in the lecture alluded to, speaks of rigidity of the legs in children, which he believes to be associated with defective cerebral development; also of cases of spasm of the adductors of the thighs for which he has had circumcision performed, but without success. He thinks that irritation of the sexual organs is sometimes a source of adductor spasms.

I do not think, as I have already intimated, that in my cases the brain was chiefly involved, and preputial irritation had certainly nothing to do with the production of the symptoms.

In regard to the treatment of these cases of spasmodic infantile paralysis, I am sorry to say that I have nothing encouraging to advance. If a congenital or acquired atrophy of the spinal cord is at the root of the trouble, you can certainly hope for but little positive benefit from any treatment, unless new channels for the transmission of motor impulses can be created. Nitrate of silver, and remedies of the same class, might be tried, but not with the hope of success that you would have in cases of a functional or temporary character, or even, perhaps, in spinal sclerosis occurring from special causes in adults. Something may, perhaps, be accomplished by training, by persistently striving to get the patients to throw more will into the muscular efforts which are wanting.

In the second case which I have detailed, I made a systematic trial of electricity. For six weeks, every other day I applied as strong a galvanic current as the child could bear—not a very strong one, by the way—along the spinal column. I used large sponge rheophores, keeping one in the lower lumbar region, and putting the other first to the back of the neck, and then moving it slowly from point to point down the spine. The ascending current was employed for half the time, and the descending for the other half. No appreciable effect on the disease was produced. Still further trials with electricity might, however, be made. The general health of the patients should, of course, be sustained by attentions to diet, fresh air, etc. As pain is usually absent, narcotics are not called for, and hypodermic injections of atropia, or of atropia and morphia, are not as useful as in the spastic paralyses of adults. In the present state of our knowledge of these cases, cutting the tendons could not, I think, be looked upon as anything but bad practice, however tempting it might be to interfere surgically.

SPASMODIC INFANTILE HEMIPLEGIA.

In conclusion, in connection with the cases just studied, it may not be uninteresting to direct your attention briefly to a case of paralytic and spasmodic disease occurring in infancy, and of undoubted cerebral origin.

The patient is a little girl, four years of age. When she began to creep her mother first noticed something wrong with her left arm and leg; they seemed much weaker than the limbs of the opposite side, and she usually carried the arm slightly bent at the elbow. When two years and a half old, the child awoke suddenly one day, crying and frightened, and immediately fell over in a spasm. The convulsions affected only the left side of the body, and the movements were chiefly confined to the fingers and toes of this side. This attack lasted about half an hour, or a succession of seizures took place during this time. Her face was pale and her lips blue during the paroxysm. Every month since this first convulsion, she has had

two or three similar attacks. They are always followed by a temporary increase in the parietic symptoms in the left arm and leg.

The child, you observe, is rather small for her age, but is of good color and fair, general appearance. She talks pretty well. She is cross, self-willed, and irritable. She never complains of headache or of pains. The left arm and leg measure about half an inch less in circumference than the right limbs at corresponding points. She carries the left arm slightly flexed at the elbow, the hand, thumb, and fingers being also in slight flexion. This arm is weak, but not powerless; she can lift it to a horizontal line, and has some grip, but cannot long continue her grasp upon an object. The entire left leg is weaker than the right, but shows no contractures. The left foot tends to turn inward. Faradic and galvanic contractility are retained, but are diminished in the peronei and extensor muscles of the foot. Examination with the ophthalmoscope shows nothing abnormal.

I could quote to you from my note-books many cases similar to this. At one time they were passed by without reasonable explanation, but much light has been thrown upon them by researches in cerebral localization. Unlike the other cases of which I have just spoken, the spasms in this patient are clonic, are accompanied by unconsciousness, and are confined to the limbs of one side. You have here in all probability a permanent lesion, both irritative and destructive, of the cortical motor area of the right hemisphere. Hughlings Jackson was the first to clearly point out that these cases of partial epilepsy, with hemiplegia or hemiparesis, were usually due to lesions of the convolutions of the brain. A number of cases have been reported by Charcot and his pupils, by Ferrier and others, in which, with symptoms like those presented by this patient, the lesions after death were found to be softening, sclerosis, atrophy, hemorrhage, tumor, tubercle, syphilitic exudation, or injury of the motor zone of the cortex.

When the spinal cord has been examined, usually a band of sclerosis has been discovered occupying the lateral column of the opposite side to the seat of the cerebral disease. This lesion of the cord belongs to the class of secondary degenerations, and is the probable cause of the persistent spasmodic conditions of the extremities.

ETIOLOGY OF DIPHTHERIA.—In discussing the outbreak of diphtheria in London last spring, Dr. T. Morton states that undoubtedly the most common mode by which diphtheria is kept alive in our midst is by direct infection from case to case. It is not probable that the poison is conveyed by fomites, but it is more than likely that very slight and almost unnoticeable cases may be the parents of severe ones. It is certain that milk is a very important factor in causing the disease. Whether it acts directly, i.e., whether the poison is generated by a disease in the cow itself, such as garget, or what the Germans call "perlspeck," or whether the milk is simply a carrier of germs taken in the cow's food, cannot be decided yet. The fact that milk is the infectious agent, however, is sufficiently established.—*Med. Press and Circular*.

PILOCARPINE AS A REMEDY FOR BALDNESS.—Two cases are given by Dr. G. Schmitz, of Berlin, in which pilocarpine caused a new crop of hair to appear on patients previously quite bald. The drug was being given for disease of the eye.

Original Communications.

CEREBRAL COMPLICATIONS OF CHOREA.

By L. PUTZEL, M.D.,

NEW YORK.

APART from the interesting nature of the following cases, I have been led to publish them from the fact that the cerebral complications of chorea have excited so little attention in this country. The histories of these cases also tend to shed some light upon the pathology of the affection, and favor the view that chorea is the result of an abnormal process occurring in the cortical structure of the brain, and not in the basal ganglia, as held by so many English pathologists.

CASE I.—Peter K—, *æt.* 8½ years, first came under my observation at the Clinic for Nervous Diseases in the Bellevue Out-door Department, on April 22, 1878. The family history is unimportant, there being no tendency to hereditary disease of any kind; neither the parents nor any other member of the family have ever suffered from rheumatism. The patient was always in excellent health until the first week in March, when he suddenly developed considerable fever, followed, in three days, by swelling of the knees and ankles, the joints also becoming exceedingly painful to the touch. This condition lasted three weeks, and was diagnosed as acute articular rheumatism by the physician in attendance at that time. Very shortly after the termination of the rheumatic attack (April 1st), and while the patient was apparently doing very well, he began to suffer from irregular choreiform twitchings in the limbs, which did not, however, attain any considerable severity. A few days later, the child awoke one morning in a condition of great muscular weakness and was unable to articulate, although speech had hitherto been perfect. The paresis gradually grew worse until a week ago (April 15th), since which time it has remained *in statu quo*. The twitchings of the muscles continued up to the present time, but were not of a very marked character.

Present condition (April 22, 1878): The patient is a large, apparently well-nourished child. He has left convergent strabismus, which came on after a slight attack of diarrhoea occurring last July.

Physical examination: The apex-beat of the heart is felt at the nipple; a loud, blowing systolic murmur is present, and is heard most distinctly at the apex; it is also conveyed into the left axillary space, but could not be traced into the scapular region; the second cardiac sound is sharp and distinct.

The patient is unable to swallow solid food, and the mother states that this condition has lasted since the beginning of the paralysis. There is considerable weakness of the upper limbs. The grasp is feeble, and the hands cannot be raised above the shoulders. The lower limbs are even weaker than the upper. There is almost complete paralysis of the anterior muscles of the leg, the feet hanging in the position of talipes equinus, and the toes are only movable to a very slight extent. The patient is barely able to flex the thighs on the abdomen. When placed in a sitting posture, the child immediately topples over to one or the other side, apparently from paralysis of the dorsal muscles. The muscles throughout the entire body feel soft and flabby. It is impossible to get accurate data with regard to sensation on account of the age of the patient.

Reflex action and the electro-muscular reactions are entirely normal. The patient is unable to speak, except to say "yes" or "no" in an indistinct manner. Sleep is very much disturbed. The natural folds of the face are almost completely effaced, and the lower facial muscles appear to be paretic. The eyelids are, however, opened and shut in a normal manner. There is very little power of motion in the tongue, the organ being protruded slowly and only to a slight extent. The choreiform movements are scarcely noticeable, and occur at long intervals. I ordered milk diet, cod-liver oil, and the following prescription:

℞ Tinct. ferri chlorid. 3 ij.
Potass chlorat. 3 j.
Syr. simp. 3 iv.

Sig., 3 j. t. i. d.

The condition of the child began to mend very rapidly, and a month later the following notes were taken: The patient is able to walk almost as well as ever, and the power of the upper extremities is apparently entirely restored. Slight choreiform movements still continue from time to time; speech is almost perfect. The mother states that during the last two weeks the child has been almost demented, and has not appeared to comprehend the simplest ideas. At times he has apparently had hallucinations of sight; on one occasion, while playing with some toys, he turned around and began to talk with some imaginary playmates, saying "that he was better than they." To-day, however, the patient appears quite bright and intelligent.

June 5th.—The patient is well in every particular, except that the mitral murmur is still distinctly audible, though not so loud as formerly.

The distribution of the paralysis over the entire body, and the coincident mental disturbances, appear to indicate that the morbid process was situated in the cerebral cortex. The rapid recovery would serve to show that the affection was due to some circulatory disturbance (anæmia?), and not to an organic lesion. In my opinion, the existence of endocarditis was merely a coincidence, and cerebral embolism may be excluded by the bilateral character of the paralysis, the rapid recovery, and the probability of a cortical lesion (symptoms of mental derangement).

CASE II.—Fanny M—, *æt.* 17½ years; family history is entirely negative. She always enjoyed good health until the beginning of the present ailment. Last August the patient caught cold while menstruating, causing a sudden arrest of the menstrual discharge. A week later, choreiform twitchings began upon the right side of the body, and soon increased in violence. After the lapse of three or four weeks, the left side of the body also became involved, but the movements have never been so severe as upon the right side. Towards the end of September the patient had a bad attack of nightmare, during which she started up from bed and wandered about the house in a condition of great fear and consternation. For the next five or six weeks she gave marked indications of insanity. For some time she refused to eat, stating that her food was poisoned and that she was being persecuted by strangers. She evinced hostile feelings toward the members of her family, especially toward her mother, whom she called vile names. At times she failed to recognize her friends and acquaintances, and thought that her female relatives were men dressed in women's clothes. The patient was also vicious and violent, destroying her clothes and various articles of furniture. During this time the choreic movements became extremely violent and continued

even during sleep, so that the patient's limbs had to be tied down in bed in order to prevent her from falling out and doing herself bodily injury. After the affection had reached its height, the choreic manifestations rapidly improved, and the symptoms of insanity began to disappear at the same time. The choreiform movements still persisted, however, to a certain extent, and were present to a moderate degree when the patient first came under my observation. I then prescribed Fowler's solution, beginning with five drops three times a day, and increasing rapidly until twelve-drop doses were taken. Within a week after beginning this plan of treatment, the menses (which had been suppressed since last August) returned, and in less than a month the choreiform movements were no longer noticeable.

In this case the mental aberration was most marked at the height of the chorea, when the movements were so violent that they did not even cease during sleep, and necessitated the application of stout bandages to the patient's trunk and limbs. The prognosis of this form of choreal mania is very good as regards recovery from the insanity. In the majority of cases the mental disturbances disappear as soon as the choreic manifestations have subsided, or within a couple of months thereafter. Cases of maniacal chorea furnish, however, a large contingent of the mortality in chorea, not so much on account of the complication with insanity, but because the choreic movements are so severe that they interfere with sleep and nutrition. This fact furnishes an important guide-post with regard to the treatment of these cases. The faulty nutrition is best met by resorting to rectal alimentation (milk, blood), or to the milk diet per os. The lack of sleep must be combated by the administration of large doses of chloral and bromide of potassium (the quantity must vary with the individual case), and, in some very obstinate cases, chloroform has been successfully employed.

Chorea sometimes simulates insanity, although the mental powers are intact. Thus, choreic patients may appear to be incoherent in their speech, owing to the fact that articulation of speech is interrupted by involuntary movements of the muscles of phonation, giving rise to the involuntary utterance of words or of disjointed sentences foreign to the matter under discussion. This apparent incoherence of ideas, together with the apparent destructive tendencies manifested by the patient on account of his lack of control over the muscles, has led physicians, in several instances, to make a diagnosis of insanity, although the intellect was normal. An English alienist, whose name escapes me, has reported two cases of this nature which had been committed to an insane asylum. The differentiation of such cases from those of choreal mania must depend upon the exercise of the judgment of the physician.

CASE III.—Wm. K.—, *et.* 8 years; the patient's great grand-aunt was insane; his grandfather died of apoplexy; a grand-uncle was an inebriate; a brother suffers from epilepsy. The mother is nervous and hysterical; but she states that this condition has only developed of late years from the worry and distress consequent upon the ill-health of her children. No member of the family has ever suffered from rheumatism. When three weeks old the patient had pneumonia, and had a number of convulsions during his illness. He also had convulsions at the beginning of an attack of measles from which he suffered during infancy. The patient had two attacks of acute articular rheumatism at the age of three and five years; had another attack, which lasted a week, about eighteen or nineteen

months ago. Two years ago the patient began to have choreiform twitchings in the limbs, which grew worse in the spring, and almost entirely disappeared after the lapse of a year. But even at the present time, considerable muscular twitching becomes apparent if the patient is very much excited. When the patient is calm these movements disappear entirely.

During the course of last summer the patient began to act strangely. He became extremely insubordinate at school, and began to display evidences of very bad temper. Upon one occasion he cut a playmate with a knife on account of a trifling dispute. Last September he began to entertain the delusion that objects around him were placed crooked. When sitting at table, he would carefully smooth out the wrinkles in the tablecloth, was continually moving the dishes in order to straighten them, and stated that the chairs and pictures were crooked. At length he would eat only from a low bench placed upon his knees, on account of his inability to get the table straight. About the same time he began to manifest an uncontrollable aversion toward his mother, to whom he had previously been fondly attached. During the summer the patient was continually finding fault with his clothes, stating at one time that the sleeves were too short, and then again too long. Finally he began to tear off his clothes, and would run around naked, "because his clothes hurt him." The patient also had hallucinations of sight and hearing. Sleep was very much disturbed unless the patient took hydrate of chloral at night. The appetite was very capricious, so that at times he would eat ravenously, and then again would lose all desire for food. The patient would wake up in the morning feeling very tired. I have been unable to obtain a history of any epileptic seizures, either diurnal or nocturnal. The patient has gone to the window several times with the expressed intention of jumping out; he has also threatened to commit suicide by cutting himself with a knife. He also said that he would rather be dead than alive, and remarked to his mother "that she would also prefer death if she felt like him, though he does not suffer from headache." Upon being cross-questioned, he is either unwilling or unable to define the nature of his suffering. His insane condition is not constant, but alternates with intervals in which he appears to be perfectly rational. These intervals are more numerous and longer than they were during last year.

The child's physical condition is excellent, and careful examination fails to reveal the slightest indication of organic disease. The patient is shy, and the expression of his countenance is gloomy and careworn.

I again saw the patient to-day (Aug. 15, 1879) and was informed by his mother that his mental condition has improved considerably during the past month, the child being more sociable in his disposition and manifesting greater affection for his mother than formerly. The treatment consisted in the beginning of Fowler's solution, and hydrate of chloral in ten-grain doses at night. During the past six months, the Fowler's solution was discontinued and the patient received nitrite of amyl, *gtt. iij. t. i. d.*, by inhalation. The administration of the latter remedy was usually successful in cutting short an attack of maniacal violence.

The prognosis in this case is very poor, the hereditary tendencies to severe nervous diseases constituting a great obstacle to recovery. This case differs from the preceding one in the fact that the choreic movements were not well developed; hereditary predisposition undoubtedly played an important part in the etiology, and this fact may also account for the con-

tinuance of the mental disturbances. Rheumatism may be disregarded as an etiological factor, both on account of the duration of the insanity, and also because the mental disturbances were not manifested until long after the disappearance of all symptoms of rheumatism.

No. 362 E. 48TH ST.

STATE PROTECTION FOR SYPHILOPHOBISTS.

By HENRY M. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF DISEASES OF THE NERVOUS SYSTEM, RUSS MEDICAL COLLEGE, CHICAGO.

IN spite of the conclusive manner in which this subject has been discussed and decided in accordance with the highest generalizations of science and philosophy, feeble voices may still be heard in remote corners of the land, hoarsely crying for protection by the civil government against the consequences of indiscriminate dalliance with the charms of easy virtue. Such an exhibition of folly might well be left to correct itself were it an isolated fact. But, unfortunately, it is merely an expression, in a particular form, of the immense ignorance which now prevails, and is even fashionable in certain circles, regarding the nature and meaning of disease, and regarding the proper functions of civil authority.

Good government exists solely for the purpose of securing to every one the largest liberty of action consistent with equal liberty for every other citizen. Good government recognizes the individual and individual rights as the highest elements of society; and, consequently, leaves to the individual the responsibility of protecting himself and his private interests in his own way, as long as he does not interfere with the equal rights of his fellows. In this way alone can the highest evolution of human character be secured; in this way strength and self-reliance and self-respect are developed and matured. But every inferior type of government seeks to subordinate the individual, and to make itself supreme. Those forms of government which accomplish this result are bad, because they are so organized as to give to certain individuals an advantage over all other members of the community. Such government is bad, because it unduly restrains the freedom of one portion of society, while it unfairly enlarges the liberties of the remaining fraction. Such a system of government produces, therefore, a one-sided development of all who are subjected to its influence. The most perfect system of government, therefore, is that which bears with the greatest impartiality upon all alike, and which refuses to lend itself to promote the welfare of any person at the expense of the equal welfare of other citizens. A bad system of government, on the contrary, lends itself readily as a means of procuring the special advantage of any enterprising character, or class, who may succeed in capturing the machinery by which it is administered. Constituting, as it does, an engine of tremendous power, the history of the world consists principally of a record of the manner in which energetic people have wielded the power of government for their own benefit. Unscrupulous people who thus regard the political machinery of society, are always ready to enlarge the sphere of government. Every additional extension of this sphere means a greater limitation of individual liberty and individual evolution. Every such extension adds to the importance of the official administrators and their friends—consequently every official class naturally seeks to help

itself by promoting the increase of official functions. At the opposite end of the social scale will always be discovered a class of indolent or enfeebled persons who are ready to fix themselves as parasites upon any social organization that seems to possess energy sufficient to sustain their weight. A government which is not maintained for the simple purpose of securing equal liberty for all, offers to such a class the greatest chances for private advantage; consequently, this inferior form of government will always be preferred by the governing class, and by the indolent and selfish substratum of society. With all such people *protection by government* is the uppermost idea. But by such protection they do not mean equal rights and equal liberty for all. The officials long to enhance their own importance by intruding their protection where it is not needed; the vagabonds insist upon protection, at the expense of honest people, against the consequences of the unbridled indulgence of their own vicious propensities.

The dangerous classes just mentioned often receive noisy reinforcement by a third class—the pseudo-philanthropists—commonly called sentimentalists, because they habitually surrender themselves to the control of their untutored feelings, instead of following the guidance of enlightened reason. These people can think of nothing but the immediate relief of suffering in what seems to them the shortest possible way. As the civil government presents to their tear-dimmed eyes the most imposing form of visible energy, they straightway fill society with a shrill cry for government aid against intemperance, and poverty, and syphilis, and scarlet-fever, and every other evil, without once stopping to consider whether individual citizens cannot just as well undertake their own protection against such dangers. Here, then, we find the explanation of the demand for state protection which forms a characteristic so discreditable to our present grade of social evolution. The manufacturing chemist insists that government shall "protect" him, at the expense of the nation, against everybody who can sell quinine cheaper than he can. The "statesman" wishes to be protected, in like manner at the expense of the nation, against the fever which his own social habits invite. The tramp boldly demands protection of the same sort, that he may enjoy a life of leisure—*otium cum dignitate*. The "gentleman" who picks his teeth in front of a fashionable hotel, thinks very meanly of a government which will not relieve him of all necessity for caution in the indulgence of his appetites—and all at the expense of honest citizens who have no time for anything but hard work and the practice of rigid virtue. A mere statement of the purposes of such legislation is sufficient to show its inequity and injustice.

It has been proposed to avoid this objection by taxing prostitutes in a sum sufficient to defray the expense of protecting their customers against them. But, to say nothing of the fact that such taxes have never been known to equal the cost of the increased machinery of government, we still meet the same unequal distribution of burdens which always accompanies protective legislation. The weight of taxation, as of shame, is thrown entirely upon the women themselves by this method, which thus becomes an additional refinement of selfishness; and society is expected to acquiesce in this prostitution of its own political machinery for the benefit of its most vicious and heartless members—while sentimentalists tell us that we must not object to any such arrangement, for fear of being eaten up by syphilis! Brave men are not afraid of any such risk.

The supreme selfishness to which allusion has just now been made indicates the existence of a moral side to this question. In fact, since man is a moral being, no adequate discussion of this subject is possible without a full consideration of its moral relations. But, since medical periodicals are not published for the sake of diffusing the principles of morality or the reverse, the proper place for such a discussion would be in some journal devoted to social science. I will, therefore, pass over this most important topic—though nothing daunted by the sneers with which men of undeveloped moral sensibility seek to cast obloquy upon all who undertake to investigate every side of whatever subject they may consider. The narrow way of looking at everything, to which our sentimental friends are so partial, is probably owing, however, to a defective visual capacity rather than to any actual moral obliquity; but it is a very serious impediment to scientific investigation, even when the field of research is restricted to the domain of the physical science. Consequently we find our philanthropic sanitary legislators continually falling into the error of attempting to deal with men and women as if they were so many cattle, instead of free and intelligent beings. Hence the universal failure of all such legislation when it cannot be enforced with powder and ball. Hence the great mistake of supposing that sanitary measures, which may produce good results among soldiers, will benefit civilians.

An army is a machine which exists for the single object of war. A soldier must be healthy and ready to fight—he need not, had better not, be too scrupulous about morals. Consequently, so far as the indulgence of his appetites is concerned, the only question for consideration is the prevention of disease as a result of indulgence. Anything which will protect him from disease is good enough, for he is not to be treated as a moral being, but as a combatant. But civilians are not so to be regarded; they are men and women, and they have rights—social and moral—which no one may safely ignore. For this cause, the alleged success of certain methods of dealing with prostitution among soldiers constitutes no reason whatever for the conclusion that the same methods will benefit civil society. The conditions are totally different, consequently the results must be as widely different.

In addition to these arguments, and to many others which may be drawn from political science and from moral philosophy, may be urged the argument of experience. In every community where the experiment has been tried, it has been found that the registration and inspection of prostitutes fails to secure absolute protection for debauchees. Women who pass the official examination may still carry within themselves the seeds of disease, and may infect a paramour whose caution has been lulled to sleep by an official certificate. It has also been found utterly impossible to maintain a system of inspection without the establishment of a loathsome brood of spies and informers, whose influence upon society is of the worst possible description.

Dismissing for the present all further notice of considerations derived from the higher sciences, we find that the entire proposal for state protection of syphilophobists is utterly opposed to the wholesome laws of nature which, if unobstructed by meddlesome interference, will surely accomplish the highest physical good of mankind. As Herbert Spencer has wisely remarked, disease and pain are simply the admonitory result of being out of harmony with one's surroundings. Without such warning it would be impossible for a conscious being ever to learn the fact of such mal-adjustment, and the evolution of the human race

would be indefinitely retarded. But, stimulated by such monitions, through the aid of natural selection, two classes of human beings are growing into prominence. The first, by sobriety and by self-control, puts itself beyond the reach of venereal disease; the second, by constant transgression, will become at length thoroughly adjusted to the brutal condition, and, ceasing to be out of harmony with its surroundings, will practice promiscuous fornication with an immunity equal to that which attends the similar performances of a dog or a goat. The great restriction and progressive amelioration of syphilis which has taken place within the period of modern history proves that this strictly scientific expectation is not so very far from accomplishment at the present time. But, if these wholesome natural processes are to be rudely hindered by the three dangerous classes of the community above mentioned, the process of the adjustment of mankind to its surroundings will be greatly delayed, and the sum total of human anguish will be greatly increased. State protection for the vicious is, therefore, the most thoroughly unscientific thing that can be proposed, as every one who has comprehended the theory of evolution must necessarily perceive. But, since sentimental people are sentimentalists by reason of their incapacity for certain kinds of knowledge, every effort thus to address them with scientific arguments must be as fruitless as would be the attempt to discuss politics with a pig. One must have a capacity for sight if one would see. To their own devices, therefore, must we abandon all such people.

CLASS-ROOM LESSONS ON CHANCROID,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[FOR THE MEDICAL RECORD.]

I.

CHANCROID—ITS CHARACTERISTICS—ITS HISTORY—ITS DIAGNOSIS.

GENTLEMEN:—To-day we will begin the study of chancreoid, and the lesson will be restricted to general remarks regarding its characteristics, its history, and perhaps its diagnosis.

Chancreoid is an acute, contagious ulceration, recognized as resulting from venereal contact. It is a purely local disease, possessing characteristics which entitle it to be considered, *par excellence*, the highest type of acute ulcerative action. In the great majority of cases it is the result of inoculation of the purulent secretion of an already existing ulcer of a similar character. Applied to sound integument or mucous membrane, it is capable, under favoring circumstances, of effecting a solution of continuity of the part, and of communicating to it at once its destructive and contagious properties. More commonly and readily it is established upon an abrasion of the skin or mucous membrane produced *in coitu*. On application of the purulent secretion of chancreoid to an abrasion, either on the person already affected or on one previously free from the disease, congestion, inflammation, suppuration, rapid destruction of tissue follow in quick succession. The ulcer thus formed presents all the characteristics of rapid destructive action; it is sharply cut, with ragged edges and pultaceous floor, and secretes pus freely. Chiefly characterized by its

contagious property, the chancre is seldom single, several distinct lesions usually presenting at the same time. Occurring under circumstances of good general health, cleanliness, and temperate living, its progress is usually self-limited; gradually increasing from two to five weeks, it acquires a diameter of from three to six lines; the loss of tissue is then slowly restored, and a scar like that of an ordinary burn is left. From first to last its secretion is inoculable, and the sore is capable of being reproduced upon the person bearing it. When reproduced by artificial inoculation it loses its contagious power in each successive inoculation until the secretion from it is no longer inoculable. It will thus be seen that the tendency of the disease, under favoring conditions, is always toward recovery. When acquired under unfavorable conditions, however, such as a depraved constitution, irregular life, filth, and alcoholic excess, the chancre assumes its most vicious type. Characterized now by a high grade of inflammatory action and an increased destructiveness, it not unfrequently takes a peculiar action which is termed phagedenic, through which, in a few days, or even hours, important loss of tissue ensues, not rarely resulting in irretrievable mutilation, and possibly in loss of life. In other rarer instances, the chancre takes on a sluggish but persistent form known as the *serpiginous*, with a gradual irregular loss of tissue, involving the integument only, but continuing often for years despite every means and mode of treatment. The extension of the chancre, usually by continuous tissue, not unfrequently takes place through the entrance of the contagious secretion into a lymphatic vessel (opened by chancre ulceration), and its passage along that vessel to the adjacent lymphatic gland. This accident may occur at any period during the continuance of the chancre. The gland in this manner affected (usually in the groin, and known as the chancre bubo), becomes tender and swollen. Evidences that the peculiar destructive chancre action is going on within the substance of the gland become daily more distinct, until in a few days an abscess is formed. On the discharge of the purulent contents of this abscess, they are found to possess the peculiar properties of pus from the original ulcer, and the open bubonic abscess takes on the appearances and other characteristics of the typical chancre.

The *venereal ulcer*, or *chancre*, in its early stages, is promptly amenable to judicious remedial measures. The application of any caustic, of sufficient power to destroy completely all the tissue which has been implicated in the diseased action, suffices to change the contagious venereal ulcer to a simple sore, when it goes on to recovery without other treatment than such simple sores require. The conditions which determine the severer forms of the chancre are recognized as already stated. It is also found that the particular lesion which may present partakes in great degree of the activity, greater or less, which characterized the lesion from which it was derived, so that every grade, from the simple excoriation to the sharply defined and most active ulcer, may be met. Hence, all do not require the prompt and energetic course necessary to arrest and cure the typical chancre. In the milder varieties, the judicious application of carbolic acid, iodoform, sulphate of iron, and other, even simpler antiseptic, sedative, and astringent agents, may suffice to bring about an arrest and cure. In the lightest forms it is often difficult to distinguish from non-venereal pustules which result from acrid sebaceous secretions, or from connection with a female suffering from an acute form of simple leucorrhœa.

In regard to its history, the chancre is conceded to be of ancient origin, even to antedate the advent of *syphilis*. It has various synonyms—viz: "pseudo-syphilis," "soft chancre," "non-infecting chancre," "chancre," etc. By the latter term, *chancre*, it is almost universally known at the present day. It was distinctly recognized and described by the ancients as a disease known from the earliest times. Notwithstanding this, shortly after the recognized appearance of syphilis in Europe in 1492, it became confounded with that disease. Its purely local character was obscured, and it was subjected to constitutional treatment as a form of syphilis. Its chief characteristics, however, always most marked, were never quite lost sight of. Evincing its destructive property at once on inoculation of its secretion upon healthy tissue, and commonly associated with inflammatory enlargement and suppuration of contiguous lymphatic glands, it was thus directly opposed to the sluggish course of the syphilitic local affection and its non-suppurating glandular concomitants. Yet it was so often found associated with and followed by the constitutional manifestations of syphilis that its distinctive significance was doubted; and when, after a time, the well-known acute venereal ulcer was occasionally observed to exchange its soft edge and base for the indurated tissue known to characterize the early syphilitic lesion, the fallacious theory of *post hoc ergo propter hoc* prevailed, and thus the confusion of the two distinct diseases became complete. From this time all the contagious venereal diseases, gonorrhœa, chancre, and syphilis, were accepted as practically identical, requiring the same constitutional treatment. It was found, however, after the habitual mercurialization of persons afflicted with soft sores or with gonorrhœa, for more than two hundred years, that constitutional syphilis did not necessarily follow the occurrence of the soft ulcer nor of a gonorrhœa, even when no treatment was resorted to, while the ulcer with indurated base and edge was invariably succeeded by the general manifestations of syphilis. John Hunter, in 1786, was the first to recognize publicly the value of the induration characteristic of the venereal sore which was followed by constitutional syphilis, thus making the first positive step toward identifying and restoring to the different venereal disorders their distinctive individuality. Hunter, however, misled by an experiment upon his own person, taught that while the local manifestations of the venereal diseases were different, their source of origin was identical, and that the peculiar form and nature which they assumed in any given case was dependent upon some peculiar condition or idiosyncrasy of the affected individual. In 1798 Benjamin Bell of London claimed a simple origin for gonorrhœa, and in 1830 M. Ricord of Paris, after a series of observations and elaborate experiments in inoculating the purulent fluid of gonorrhœas and the secretions of the soft and hard venereal lesions, demonstrated the purely simple, non-specific nature of gonorrhœa, thus completely and forever eliminating it from among the manifestations of syphilis. Ricord, however, notwithstanding his numerous and carefully observed inoculations, and while distinctly recognizing the local and ultimate differences between the hard, or Hunterian chancre, and the soft sore, or chancre, yet accepted and taught Hunter's view, that the difference between them was not one of origin, but of personal condition or idiosyncrasy. It was reserved for M. Bassereau of Paris (a pupil of M. Ricord), in 1852, to demonstrate the fact that in the disease then known as syphilis, comprising the soft local venereal ulcer and the indurated infect-

ing venereal sore, with its consequences, two separate diseases existed. Upon the confrontation (i. e., personal comparison) of a very large number of persons affected by venereal disease, with those from whom their disease had been acquired, Bassereau found that in every person presenting a venereal ulcer, accompanied by well-pronounced evidence of constitutional syphilis, the person from whom the disease had been acquired was also, or had recently been, the subject of ulcers which were followed by constitutional syphilis, and that in no case was syphilis ascertained to originate from a person bearing the soft venereal ulcer alone. Similar observations by confrontation were made by Messrs. Dron, Clerc, Diday, Rollet, and Fournier in 1856, and in 1857 by Messrs. Fournier and Cabv, under the supervision of M. Ricord, with the result of proving that in all cases of chancroid the type of ulcer remained unchanged in passing from one individual to another. Nevertheless, M. Clerc, while accepting and confirming the observations above alluded to, claimed to have produced the typical chancroid by inoculation of the secretion of an infecting (syphilitic) chancre upon a person previously the subject of syphilis, and thus to have demonstrated that the chancroid was the product of the inoculation of the syphilitic virus upon persons then or previously affected with syphilis. Clerc also claimed that while, as a rule, the chancroid thus originated usually transmitted only chancroid, yet on being inoculated upon a healthy person it was capable of reverting to its original type, and hence of communicating syphilis; thus asserting the unity of origin of the two diseases; and those holding this view were known as *unicists*. Rollet and others held, on the contrary, that not only were chancroid and chancre (the initial lesion of syphilis) separate and distinct diseases, but that they owed their origin to separate and distinct poisons; and thus the school of so-called *dualists* was initiated. The position of M. Clerc was supported by the observations of Henry Lee of London, the late Prof. Boeck of Christiania, Melchior Robert, and others, who succeeded in producing the typical chancroid upon persons syphilitic and non-syphilitic by inoculations of pus from an irritated syphilitic chancre. It was required that the degree of irritation in all cases should be sufficient to induce a free *purulent* secretion. Sores produced in this manner were inoculated in successive generations upon persons quite free from syphilitic taint, and behaved in all respects like the ordinary venereal chancroid. It was, however, found that when the superinduced irritation subsided, and the secretion was no longer purulent, it was no longer auto-inoculable; and hence it became evident that the property of inoculability was consequent upon a peculiar action resulting from the persistent irritation of an already diseased surface. The fact that the chancroid could be established upon persons entirely free from syphilitic taint, and not be followed by syphilis, demonstrated that its existence was not necessarily dependent upon the syphilitic principle. Experiments were then made by Pick, Bidencap, Koebner, Boeck, and others, to ascertain the effect of inoculations of pus from simple lesions on persons free from syphilitic taint. The result showed that affections in non-syphilitic persons which are of slight virulence, the secretions of which are not inoculable, can be made to produce an inoculable secretion by the application of an irritant. Kaposi states that in his experiments the pus taken from acne, and from scabies in non-syphilitic individuals, has produced pustules, the pus from which was inoculable in generations on the bearer as well as on other non-syphilitic persons. In 1866 Dr.

Edward Wigglesworth, Jr., of Boston (reported by Dr. Bumstead in his paper *On the Unity and Duality of Venereal Sores*, read before the Centennial Medical Congress of Philadelphia), while studying under Prof. Zeissl of Vienna, and being entirely free from any suspicion of venereal taint, but in somewhat impaired general health, inoculated his own arm with pus taken from a simple pustule of acne. This produced a similar pustule at each of the three points of inoculation. Pus from these being again inoculated, a third generation was established. Nine distinct sores, the result of the inoculations, were present at the same time, and, pursuing a similar course, finally healed, leaving as many distinct cicatrices, indicative of loss of tissue through the process of ulceration. This experiment during its progress was under the personal observation of Prof. Zeissl, and was repeatedly exhibited to his class as demonstrating the contagious and destructive properties of non-specific pus under certain circumstances unconnected with syphilis or with any venereal influence. Observations (personal) have shown that the muco-purulent secretion from non-specific nasal catarrh will sometimes produce excoriations of sound cuticle, and that contact with secretions from non-specific leucorrhœas will sometimes promptly cause pustular eruptions (*herpes*) of the preputial mucous membrane of the male; and these more or less rapid in development and progress according to the degree of activity of the inoculating secretion (in some instances so simple that they are scarcely more than sero-purulent vesicles, and in other cases observed so vicious that in appearance they do not differ at all from the typical chancroid), the secretion being also *auto-inoculable*, as proven by the occasional occurrence of similar lesions upon opposing surfaces.

Mr. John Morgan, of Dublin, in his work on venereal diseases (1878), cites numerous instances in which he has observed the typical chancroid to result from inoculation of the muco-purulent secretions of leucorrhœas in syphilitic women, upon other women, also subjects of syphilis. Vidal cites a case where pus taken from a pustule of simple ecthyma, in a patient suffering from typhoid fever, was promptly inoculable on the patient, but failed when inoculated upon a healthy person. It is therefore shown that the quality of pus is variable, according to the circumstances under which it is produced and the condition of the person upon whom it may be inoculated. That a low condition of the general system from any cause predisposes the healthy tissues to take on ulcerative action and to elevate the accompanying purulent secretion to a point of contagiousness. Lesions, especially of mucous membrane of the human genital apparatus of both male and female, are common under the circumstances peculiar to the venereal act. Inflammations of mucous membrane in the same locality are frequent, and characterized by muco-purulent secretions, often profuse and acid; and this, too, when the subjects of them are in good general health and living under the most favorable hygienic conditions. When, therefore, it comes to be considered that the most frequent habitat of the chancroid is in localities where venereal excess and every kind of debauchery abound: when to this are often added the potent elements of syphilis and scrofula, hereditary and acquired, filth, and irregular living: and when (as has been shown by Fournier* and others) chancroid is found by far the most frequent in proportion to syphilis among the de-

* Fournier noted in his private practice, 82 simple, 263 infecting; in Hôpital du Midi, of 341 chancroid, 215 were simple; and the report of disease in the same hospital, where 10,000 cases of venereal sores were treated, 8,045 were said to have been simple chancroids.

based and dissolute, the conclusion is inevitable that chancroid is, and of necessity must be, a self-engendered disease, possessing no specific virus, but acquiring its power for destruction and contagion through the stimulation and vitiation of benign natural processes.

The venereal ulcer or chancroid acquires its chief importance from its liability to be mistaken for, and treated as, the initial lesion of syphilis. The distinction between the two lesions at the outset is often impossible. The active characteristic of the chancroid is recognized as a necrosis—that of the syphilitic lesion one of growth or proliferation. The surface of a sore, then, may be the field of chancroidal action, while the living tissue beneath may be at the same time a centre of proliferation of syphilitic disease-germs, which are constantly gaining access to the general circulation through the contiguous lymphatic vessels. These germs may be originally deposited upon a simple abrasion or one already the seat of chancroidal action, or may possibly be subsequently inoculated through the breach of tissue made by the chancroid. If the former, the imposition of the secretion of a chancroid upon the same point, if the disease-germs have been freshly deposited, might cause their destruction, and thus leave only the chancroidal element; but once the syphilitic principle has extended below the surface and has entered a lymphatic vessel it has gone beyond the sphere of action of the chancroid. The only method of determining whether a given chancroid or other lesion, occurring after a suspicious venereal contact, is or is not to be followed by constitutional syphilis, is to reserve a final decision for a full month subsequent to the exposure. This course should be pursued even though during the interval the suspected lesion, possessing all the characteristics of the typical chancroid, should have fully healed. If during or after the month no hardening of the tissues composing the edge and base of the sore, nor, if healed, of the cicatrix, nor any enlargement of the adjacent lymphatic glands, can be discovered, then, and not until then, can the patient be assured that he has had an uncomplicated chancroid, and that no syphilis will follow. Those milder forms of ulcerative action which are just within the line of distinction between the simple so-called herpes and the chancroid are the most frequent to exhibit subsequent evidences of syphilitic infection. By reason of their inactivity they are less likely to destroy any of the germs of syphilis which may come in contact with their surface.

The frequent association of chancroid with syphilis will never lead to mistaken identity if it is constantly borne in mind that syphilis is always, in all its manifestations, a process of growth, of proliferation. The most scientific and critical examination of the products of syphilis, from the *initial lesion* to the *gummy tumor*, has never been able to detect any abnormal material—nothing but excessive accumulations of tissue-building cells. Chancroid, on the other hand, from its inception to its cicatrization, is a process of necrosis—literally, *death* of tissue. So that *syphilis* and *chancroid* are always and only in relation to each other as *life* to *death*—each the highest type of its own peculiar action.

(To be continued.)

RED CINCHONA as a remedy for habitual drunkenness is receiving considerable indorsement from English physicians. It is by no means considered a specific, but it is a useful adjuvant to beef-tea and good resolutions.

Progress of Medical Science.

TANNATE OF PELLETERINE AS A TÆNIAFUGE.—The active principle of the bark of the punica granatum, discovered by M. Tauret, and described by him under the name of *pelletierine*, has been used with success as a remedy for tænia. It is given in the form of the tannate, in the dose of 50 centigrammes, followed in two hours by 30 grammes of castor oil. Dr. Laudrieu describes its action as follows:

In the two cases observed neither colic nor headache were occasioned. In the first the patient had been prepared by dieting, and a single dose sufficed to expel the tænia entire. In the second one dose did not suffice, it is true, but the patient was not weakened by the treatment. The patients did not exhibit that repugnance so constantly shown to the administration of koussou or the pomegranate bark. In a third case the administration of a dose of the chlorhydrate of pelletierine brought away 15 metres of worm, the only phenomena observed being diplopia and a slight tendency to syncope, both of which quickly passed off.

The pulse and temperature were not influenced by this medicine; nor were the kidneys in any way affected. The medicine seemed to have an elective and toxic action, operating solely on the tænia.—*Journal de Médecine de Bordeaux*, June 28, 1879.

ON THE STRUCTURE OF BRUNNER'S GLANDS.—Prof. Renaut, of Lyons, has made a careful microscopic study of the Brunner's glands of the human duodenum, and states that they are not, as generally believed, conglomerate glands like the salivary, but resemble rather the mucous glands of the œsophagus and bronchi. The specimens of intestine examined were removed from the body of a decapitated felon thirty minutes after execution, and while the heart was still kept beating by mechanical irritation. He found the glands in question arranged in two distinct layers, one being situated in the *muscularis mucosa*, and hence in the deeper parts of the intestinal mucous membrane, and the other in the loose submucous connective tissue, in direct contact externally with the muscular coat of the gut. In structure each gland consists of a series of multifidous *culs-de-sac*, the lateral diverticula situated on a collecting tube opening directly into it without any contraction in diameter. The connective tissue framework of the glandular tube is disposed in the form of a spur at the junction of the secondary with the primary *culs-de-sac*. Prof. Renaut compares these *culs-de-sac* to the ramifying fingers of a glove, while the salivary glands, with which Brunner's glands have hitherto been considered analogous in structure, are most correctly compared to a bunch of grapes. In the salivary glands each acinus empties its secretion into an intralobular duct, which unites with others to form interlobular and interlobar ducts, the epithelium of each anatomical subdivision of the gland having its own peculiar characters. In Brunner's glands, on the contrary, each lobule is formed of from fifteen to twenty *culs-de-sac* opening one into another, without anything resembling intra- and interlobular ducts, and the epithelium presents the same characters in all parts of the gland. It is composed of clear prismatic cells, with a flattened nucleus crowded toward the base; the cells are longer than they are broad, are completely filled with mucus, and are entirely analogous to the cells of the muciparous glands of the œsoph-

agus, bronchi, and pylorus. The base of each cellule, however, is prolonged into a sort of minute cue, which is insinuated under the neighboring cell. The connective tissue forming the membrane of the gland presents minute projections, which embrace the bases of the epithelial cells. Prof. Renault has not succeeded in demonstrating a subepithelial endothelium; on the contrary, the fixed cells of the connective tissue envelope are separated from the epithelial layer by a delicate transparent border, which remains untinged and contains no nuclei. The epithelium of the collecting tubes differs from that of the culs-de-sac only in the cells being a little flattened. These tubes open either at the bottom of a fold of mucous membrane or into a follicle of Lieberkuhn.

The glands of the external group form more voluminous masses, which are divided off into lobules and lobes, but in their minute structure they are identical with the glands of the internal group. The glands of the two groups often communicate through gaps in the muscularis mucosæ. Prof. Renault states it as his opinion that Brunner's glands are destined for the secretion of a peculiar mucus, but not of any ferment. In support of this opinion, he adduces the absence of the zone of granular cells characteristic of glands that furnish a mixed secretion of mucus and ferment. He claims that these glands form, with the true mucous glands of the œsophagus and bronchi, which present the same fundamental characters, a natural, distinct, anatomical group, totally distinct from the group of conglomerate glands proper, the type of which is the parotid or submaxillary.—*Le Progrès Médical*, June 7, 1879.

A CASE OF LONG-CONTINUED PRIAPISM ACCOMPANYING LEUKÆMIA.—Dr. Salzer, of Worms, reports the case of a man, 46 years of age, who suffered for seven weeks from persistent priapism. He had previously suffered from intermittent fever, but was at this time in apparent good health. One morning he was awakened by an intensely painful erection of the penis, that proved utterly rebellious to treatment. Leeches, warm fomentations, chloral hydrate, and even chloroform narcosis were tried in turn, but all without success. The urine was passed with difficulty, usually in short jets, and most readily in the knee-elbow position. Physical examination revealed only marked enlargement of the spleen. Finally, after the penis had been kept for three weeks constantly enveloped in strongly camphorated narcotic poultices, opium and camphor being administered internally at the same time, the priapism gradually disappeared, having persisted fully seven weeks. During the week preceding this attack, the patient had had two attacks of priapism, one of which lasted only a few hours, and the other twenty-four hours. After the appearance of the priapism the patient rapidly lost strength and acquired a cachectic appearance, and the spleen progressively increased in size. Two months after the priapism disappeared there was complete loss of sexual power, and the patient died about eight months afterward. The blood was not examined microscopically, and an autopsy was not permitted.

Dr. Salzer collates from medical literature eight cases of priapism occurring in connection with leukæmia. Various theories have been brought forward to account for the priapism in these cases. Kremme ascribed it to extravasation of blood into the corpora cavernosa, and Longuet to impeded circulation in the smaller vessels and the formation of thrombi, resulting from the altered condition of the blood, while Neidhart thought that irritation of the nerves might

possibly be the exciting cause. Dr. Salzer thinks that the rapid disappearance of the priapism in the two first attacks in the above case argues against the occurrence of an extravasation of blood. He believes that both the temporary and the persistent attacks of priapism were due to irritation of the nervi erigentes. It is well known that priapism may be produced both by peripheral and by central irritation of these nerves. As examples of the former, he adduces the erections accompanying inflammation of the urethra or of the neck of the bladder, swelling of the prostate, etc.; and, as examples of the latter, the erections of insane persons, or that follow injuries of the spinal cord. The priapism of leukæmia, he claims, differs from these varieties chiefly in its longer duration, and hence for its development some special cause must be sought. This may possibly be found either in the presence of anatomical changes in the nervi erigentes, or in pressure on them, ex. gr., by swollen lumbar glands.—*Med.-Chir. Rundschau*, June, 1879.

TREATMENT OF URTICARIA BY ATROPINE.—In 1876 Dr. Fraenkel recommended the internal administration of atropine in the treatment of severe forms of urticaria. Dr. Schwimmer now reports three cases of this affection, which, after proving rebellious to all the usual methods of treatment, were rapidly cured by atropine. These three cases, however, show that the atropine treatment does not prevent relapses. Dr. Schwimmer believes that urticaria is simply an angioneurosis, and ascribes the efficacy of the drug to its action on the sympathetic system.—*Lyon Médical*, July 13, 1879.

SALICYLIC ACID IN THE TREATMENT OF LUPUS.—Dr. Ameglio reports a case of ulcerative lupus of the face, of five years' duration, in which he employed salicylic acid locally, after all the usual applications had proved ineffective. The ulcerating surface was painted three times a day with a solution of six parts salicylic acid in twenty parts glycerine. After a few days the readily bleeding vegetations withered, and the floor of the ulcer took on a healthy appearance; at the end of the month cicatrization was completed. The patient at the same time took arsenic internally.—*Gazette degli Ospedali*, and *Med.-Chir. Rundschau*, June, 1879.

USE OF Pilocarpinum Muriaticum in Children's Diseases.—Prof. Weiss has studied the effects of pilocarpine in fourteen children suffering from nephritis, with general dropsy, following scarlatina. In four of the cases there existed, also, extensive bronchitis, in two diphtheria, and in one pneumonia of the left lung. The medicine was administered hypodermically, four or five drops of ether being added where collapse was feared. The following are the author's conclusions: 1. Pilocarpine has proved to be a very successful remedy for children suffering from nephritis and scarlatina. 2. In giving it to children, care should be taken to begin at first with small doses, which may later on be gradually increased. 3. If the little patients are very weak and likely to collapse after the injection, a few drops of ether should be added to the pilocarpine solution. 4. The drug produces a very copious and lasting secretion of sweat, such as no other drug has ever been known to call forth. It acts quickly. 5. In cases of bronchitis, complicated by dropsy, which often produces dyspnoea in children, the affection of the bronchi vanishes very soon after the remedy has been administered.—*London Medical Record*, May 15, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 6, 1879.

THE BRITISH MEDICAL ASSOCIATION.

We were favored with a report of the proceedings of the British Medical Association at the earliest date possible, and gave it to our readers in advance of the complete report as it appears in *The British Medical Journal*, the journal of the Association. It is gratifying to hear that the late meeting held in the city of Cork, Ireland, has left behind it so many pleasurable recollections. Nothing was left undone which could be regarded as likely to add to the convenience and the happiness of the guests, or to facilitate the business of the Sections.

One feature in the general management of the Association, during the annual meeting just held, is worthy of special mention, and we hope it may find its exact counterpart in the next Annual Meeting of the American Medical Association to be held in this city. It is this: the whole of the numerous meetings, committees, and sections of the meeting, were provided for under one roof. None but those who have attended the meetings of such Associations can fully appreciate how much such a convenience contributes to the actual scientific work done by their members.

We are pleased to learn of the financial prosperity of this Association, and we are also happy in receiving the information that its prosperity is largely due to the aid afforded by a well-managed medical journal, which circulates weekly nine thousand copies. The Honorary Treasurer made the satisfactory announcement that the excess of assets over liabilities at the close of the year—embracing income from all sources—amounted to upwards of six thousand pounds.

We have reason also for good feeling in the fact that the Association, through its journal, acknowledges that the working value of the meeting and the distinction of the gathering was increased by a considerable number of scientific guests from "other lands," who brought with them important contributions of

new knowledge, and a weight of reputation and international character. Among the distinguished visitors from this country, whose names were not mentioned in our report, we notice Drs. E. G. Loring and C. E. Agnew, of New York, and Dr. Wm. H. Byford, of Chicago, who gave to the Association valuable accessions of scientific work.

The meeting itself is a testimony to the united spirit which the whole profession, both in the new and in the old world, begins to feel, and we hope that the smoking flax will not be quenched.

The American Medical Association holds its next Annual Meeting in the city of New York, a point easy of access from all parts of the world, and we believe we speak the sentiment of the profession of this city and of this country when we say, we hope that to American physicians and surgeons may be accorded the privilege of greeting distinguished visitors from the old world, more numerous than those from the new world who have just been made the recipients of the hospitalities of the British Medical Association.

But we wish to acquaint our readers a little more extensively than has been done in our report with the scientific work of the Association. A sketch of the address in Surgery by Mr. Savory has already been given. It was largely devoted to the question of antiseptic surgery, and as that is the topic of the day, the remarks of one who has had immense experience in one of the largest hospitals in Europe are worthy of a more extended reference than they have received.

It has been the great theme of surgery to prevent blood-poisoning after wounds and operations, and, says Mr. Savory, "a splendid struggle now goes on through England, Europe, and the civilized world to reduce the mortality from this cause after operations to the lowest possible terms." The chief glory of surgery during the past twenty years has been the great advance which has been made in all its processes, and now the question arises, How has this result been secured? Mr. Callender, one of England's able surgeons, during his last visit to this country, spoke to our medical students and to our surgeons of the details of the dressing of wounds and the management of the patient after undergoing a surgical operation, so that the least possible shock should be given to the system, and the least possible disturbance to the processes of repair. We were all favorably impressed with the exceeding simplicity and yet great value of his surgical advice. He depended upon careful attention to the details, prior and subsequent to the operation, rather than a formidable array of steam-boilers, glistening instruments, and elaborate apparatus to give him the best possible results. Mr. Savory, in answering the same question, also says that the advance has been secured by "increased care and attention to all the details of the dressing of the wound; the state of the patient's health, the selection of the operative procedure, the surroundings of the patient,

and especially by a comprehensive study of the difficulties which each surgical case presents." While Mr. Savory does not reject Mr. Lister's plan, he assumes what seems to us to be a very sensible position, namely, that the attention of surgeons has been too exclusively fixed upon what is called "antiseptic surgery," and that the importance which belongs to other matters has been overlooked.

We have often been impressed with the question, and it seems that the attention of others has been turned in the same direction. Why do open wounds heal so kindly, if it be true that the atmosphere is laden with deadly germs which are ready at all times to enter and develop blood-poisoning? The truth is, so far as we have been able to ascertain, that no physical proof of the germ theory has been given, and it is this fact, perhaps, which has led the strongest advocates of the Lister plan to persistently avoid the challenge to show by actual comparison how far their results are really superior to those obtained by surgeons who do not adopt the method of treatment.

"The foul and ugly mists of vapors that did seem to strangle him" may with propriety be reduced by a "twenty per cent. of carbolic," and "upon my life, it will do well," but as one of our able contemporaries puts it, we do not believe that bigotry or stupidity is shown in requiring experimental proof of the superiority of the practice before admitting the exclusive claims of the antiseptic method.

To the knotty points in this question Mr. Savory turns his attention, and discusses them with the ability of a master in the art. He does not evade the following question: Are there classes of cases which can be treated successfully by Lister's method, and not by simple treatment? but gives us this answer: "I take leave to doubt whether these assertions are borne out by facts. In my humble opinion, operations are sometimes performed, both with this method and otherwise, which in any case had better be left undone; but I believe that patients have escaped with life after operation as full of risk to it, with other methods as with this. But this sort of statement, because it admits of no direct refutation, is never wanting in favor of any novelty. Has any new plan of treatment ever been proposed unsupported by abundant illustrations of its excellence?"

It might seem at first that Mr. Savory's address is an attack on Listerism; but it cannot, in justice to its author, be so construed, because he pursues an independent line of argument to show that, in hospital surgery, the best results have been obtained by the simplest means. It may be said, and with a certain degree of truthfulness, that operations are now undertaken, such as opening into the knee-joint, into the abdominal cavity, and are safely performed under complete antiseptic precautions, that, previous to the introduction of the system, were approached with very great timidity. Yet it is equally true that some sur-

geons, especially in this country, habitually practised opening large joints—the safety, as they claimed, depending upon the manner of performing the operation—many years antedating the birth of Listerism. However, if there is no principle in the plan, and it is nothing more than a proper detail, it is worthy of observance.

In this instance, as in many others, there is a lack of authentic information upon both sides of the question, and it is this deficiency which renders it impossible to form an abiding judgment. "There is need of more definite information on many of the most essential points of surgical treatment, and in particular for that full and definite comparison between the results of antiseptic and of ordinary surgery, which has been so long asked for by those who are neither enthusiasts nor opponents of the method, but who want to do their duty to their patients."

Mr. Savory's address has already attracted the attention of the advocates of Listerism, and a correspondence has appeared in the *Lancet* from the pen of J. Greig Smith, Surgeon to the Bristol Royal Infirmary. It seems quite probable that the address will give rise to an extended discussion.

The saving of human life should be made the essential element in the great art of medicine and surgery.

VIOLATION OF THE CODE.

SCARCELY a week passes in which we do not receive one or more complaints or reminders that there has been an infraction of the code. There are those who feel aggrieved because medical men persist in lending their hard-earned and questionable fame to sustain the virtues of lager beer. There are others whose spinal columns arch at the fact that certain pseudo-eminent surgeons have become consultants to homeopathic hospitals; and there are still others, young in the profession, who have had a temporary attack of exophthalmos because some old and honored member of the regular school, and in good standing in his County Medical Society, has consulted with eclectics, homeopaths, and others of like ilk, and has allowed his name to enter the columns of the village newspaper in what seems to be an undignified, unprofessional, and under the aroma of the code, in an illegal manner. One young man, who recently graduated from a respectable medical college, where he listened to the old story of our "glorious and honorable profession," holds his hands up in horror at what his ears have heard, his eyes have beheld, and his warm heart has felt. He asks for advice. He is perplexed; he is annoyed; and, judging from his pathetic appeal for aid, he is disgusted. It is very evident from the tenor of all these complaints that violations of the code are eye-sores to the complainants; they are like a picture hanging askew on the wall.

For their comfort and encouragement it may be said that there is a way out of their embarrassment, which

perhaps may seem thorny, but it is narrow, direct, and will ultimately lead them to clear and unobstructed professional sailing. It is a time-honored principle in the practice of medicine to first, if possible, remove the cause of disease. This principle may be relied on in dealing with questions of medical ethics with the same degree of safety as in dealing with the manifestation of germs, infectious elements, or chemical compounds. Provisions have been made for the radical treatment of all such cases of individual indiscretion or personal attempt at setting at defiance established regulations, and the machinery for correcting the violations of which complaint is made is within the reach of the humblest physician. A court of inquiry and trial exists in each County Medical Society in the State, and from these an appeal can be carried to the State Medical Society, and it is fair to presume that when a case of direct violation of the by-laws and the constitution of these societies or of the code of medical ethics is presented, that each offender will receive the attention he merits. Let the offended promptly complain before the local tribunal; let the local tribunals be thorough, impartial, energetic, and scrutinizing in sifting the evidence brought; and let the higher authority be honorable and uncompromising in establishing the ends of justice, and there will be far less cause for murmuring than at present seems to exist. This is a method of removing these excrescences which is effectual, direct, and radical, and we will add that it is the duty of those who live in the midst of such abnormalities to set their own house in order, and be as faithful in cleansing it as though they had been exposed to the virus of yellow fever. Thorough purgation in the present instance first, and disinfectants afterward.

HONOR TO DR. LONG.

WE furnish our readers a brief correspondence relating to the presentation of a portrait of Dr. Crawford W. Long to the Georgia Legislature, in Atlanta, August 22, 1878. A few years ago Dr. J. Marion Sims revived the discussion upon the discovery of the anæsthetic properties of sulphuric ether, and gave the credit to Dr. Long, who, at the time the discovery was made, was a resident of Jackson Co., Georgia. The movement initiated by Dr. Sims has culminated in the presentation of a fine portrait of the discoverer to the Alumni Association of the University of Georgia, which, in turn, presented it to the Legislature of the State of Georgia, and it is to be retained in the Hall of the House of Representatives.

The movement has already given rise to discussion, and it may be that this whole subject will again be brought before the profession and the world.

A NEW MEDICAL SCHOOL is to be established in Edinburgh in connection with the new university. The buildings are now being erected.

Reports of Societies.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Third Annual Meeting, held in the City of New York, August 26th, 27th, and 28th, 1879.

TUESDAY, AUGUST 26TH—FIRST DAY.—MORNING SESSION.

THE Association met at Park Avenue Hotel, and was called to order by the President, Dr. L. A. Duhring, of Philadelphia.

At 9.30 A.M. a business meeting was held at which the Report of the Council was presented, the Nominating and Auditing Committees appointed, proposals for active and honorary membership made, and miscellaneous business attended to. There were present during the sessions of the Association the following members: Drs. Louis A. Duhring and Arthur Van Harlingen, of Philadelphia; I. E. Atkinson, of Baltimore; J. N. Hyde, of Chicago; W. A. Hardaway, of St. Louis; C. Heitzmann, R. W. Taylor, L. Duncan Bulkley, H. G. Piffard, George N. Fox, and Frank P. Foster, of New York; J. C. White and Edward Wiglesworth, of Boston, and S. Sherwell, of Brooklyn.

The first thing on the regular programme was the address of the President, Dr. Duhring, which showed great labor in its preparation, and the subject of which was

THE RISE OF AMERICAN DERMATOLOGY.

In tracing the history of the science he gave an exhaustive résumé of all the earlier literature on the subject, and afterward a chronological narration of the establishment of all chairs devoted to the subject in the principal colleges and of special institutions for skin disease, as well as of the skin departments of the various large hospitals and dispensaries. Among the works referred to are the following: "A Brief Guide in the Small-pox and Measles," by Thomas Thatcher, which appeared in 1677, and is believed to have been the first medical book ever published in this country. The author of it was well known, not only as a learned physician, but also as a divine. A work on Cancer by Lieut.-Governor Cadwalader Colden, a man of great learning and high attainments, and also author of a volume on the Climate of New York, which is better known than the other. "An Essay on the Causes of the Different Colors of People in Different Climates," a long and elaborate treatise by John Mitchell, of Virginia, which is said to have been the first work ever published on the subject. Dr. Mitchell was also the author of a brochure on yellow fever as it prevailed in Virginia in 1741. "An Essay on the Causes of the Variety of Complexion and Figure in the Human Species," by Samuel Stanhope Smith, President of the College of New Jersey (1787). The book attracted a considerable amount of attention in Europe, and contained an account of the case of the negro, Henry Moss, of Maryland, who during a period of twenty years underwent a change of color from a deep black to a clear and healthy white. "An Experimental Dissertation on the Rhus Vernix, Rhus Radicans, and Rhus Glabrum," an able and exhaustive work by Thomas Banfield. A "Dissertation on Perspiration," by James Agnew, of Princeton, New Jersey (Philadelphia, 1800), an essay of unusual excellence. "On the Warm Bath," by Dr. Lochette, of Virginia. "The Ius Veneria; the Modus Operandi

of Mercury in curing Gonorrhœa," etc., by James Tongue, of Maryland, in which the author endeavored to prove that syphilis was not introduced into Europe from America, and that syphilis and gonorrhœa were two distinct forms of disease. "A Prospect of Extirminating the Small-pox," and a paper on the Cow-pox Virus, by Dr. Waterhouse, of Cambridge (1800). "The Jennerian Discovery," by C. R. Aiken. "The Structure of the Skin, with a View to the Diagnostics and Cure of Diseases usually denominated Cutaneous," a Boylston prize essay by George S. Shattuck, of Boston.

On the second of June, 1836, the "Broome Street Infirmary for Diseases of the Skin" was established in New York, with Drs. H. D. Bulkley and John Watson as physicians in charge. The following year a course of lectures on Dermatology was given at the Broome Street School of Medicine, by Dr. Bulkley, who had fitted himself for the work in Europe, and this was the first ever delivered in America on this subject. About the year 1830 the Medical Department of the University of Pennsylvania came into possession of a large and fine collection of models of skin disease, which had been purchased in Europe by Prof. George B. Wood, and this was the first treasure of the kind that was ever brought to this country. In 1861 Dr. J. C. White, the honored ex-president of the Association, gave the first course of lectures on Dermatology in Harvard University, and shortly after the close of the war chairs in this department were established in all the medical colleges of New York, Philadelphia, and other large cities. The New York Dermatological Society, an organization which has exerted so marked an influence on the study of skin disease, was founded in 1869, with Dr. H. D. Bulkley as its first president.

The first regular paper was one by DR. I. E. ATKINSON ON

A CASE OF INCOMPLETE VITILIGO.

The patient was a dark mulatto woman, twenty-five years of age, who had first noticed the affection under consideration four years before. Her skin presented peculiarities having the same relation to acquired leucoderma or vitiligo as the case described by Captain Burton, the African traveller, of which Beigel speaks, bears to congenital leucoderma, or albinismus. The trouble was very extensive: the back of the hands, the forearms, arms, neck, breast, abdomen, buttocks, thighs, and, indeed, nearly the whole surface except the face, scalp, and back being affected. These various portions were sure to be colored in different shades. First there was a dark one, which formed the ground color, and was the normal hue; then there was a still darker ring bordering the vitiliginous patch, and finally a central much lighter shade which involved an immense number of irregularly distributed, discrete and confluent spots. Upon the neck and breast these spots were comparatively few; but here, in addition, there were a number of vertically running atrophic striæ of an abnormally light color, such as are commonly seen upon fat persons and on the abdomen after pregnancy. There was no difference to the touch between the normal portions of the skin and that affected with the vitiligo, and the æsthesiometer showed that there was no deficiency of sensibility in the latter. Beyond some anxiety on account of the discoloration of the skin, the patient did not seem to have any subjective symptoms.

No result was produced by any therapeutic measures; but, curiously enough, it was noticed, while the case was under observation, that in certain portions of the body (notably the backs of the hands) there was first

the complete absence of deficient coloration, subsequently the existence of the vitiligo, and, finally, its complete recession from these parts. The hairs, although not abundant anywhere over the surface, were not less numerous upon the affected spots of skin than in other portions of it, and remained unchanged in color.

DR. WHITE considered it a matter of importance that this restoration of pigmentation should have taken place under the notice of a reliable observer, and said that he believed it to be the first instance of the kind which had been recorded by such.

DR. TAYLOR referred to the case of a Dr. Burdick, of Vermont, who has leucoderma of the hands every summer, which, however, begins to disappear as the cool weather of autumn comes on, and is entirely absent during the winter.

DR. BULKLEY stated that he had seen but one case of leucoderma in which the hairs remained entirely unaffected in color; and Dr. Fox remarked that he thought this case of Dr. Atkinson's explained many of the cases in which the disease has disappeared and reappeared, as well as those in which the hairs were in a variable condition. In the complete forms he was inclined to believe both that the hairs always turned white, and that no return of pigmentation ever took place. Of course it was always a difficult matter to say in any given case whether there was really a complete absence of pigment. One case which he had seen was of great interest, as it was one of combined melanoderma and vitiligo, there being *increase* of pigment before it began to disappear; and he thought that this was perhaps the general rule. After some further discussion by Dr. Sherwell and Hardaway, a paper entitled

A CONTRIBUTION TO THE STUDY OF THE BULBOUS ERUPTION INDUCED BY THE INGESTION OF IODIDE OF POTASSIUM,

was read by DR. HYDE, of Chicago. The case which gave occasion for his writing it was remarkable not only in being an instance of a very rare affection, but also on account of the age of the patient, an infant at the breast eight months old. It had been troubled with chronic eczema capitis, and about a month before Dr. Hyde was consulted in reference to it, an immense number of boils came out upon its head. It was on account of the latter that the physician in charge ordered the iodide of potassium; the quantity taken being five grains a day. When the bulbous eruption known as hydroa made its appearance, he discontinued the iodide (although until the suggestion was made to him by Dr. Hyde, it had not occurred to him that this new difficulty was due to that cause), and it at once began to decrease. In view of the points elicited by a study of this and all the other reputed cases that he was able to collect, Dr. Hyde came to the conclusion that some of Tilbury Fox's opinions in regard to this disorder could only be accepted with reserve in the light that we can command upon the subject at the present time. The most valuable of the practical deductions to be made from his case, Dr. Hyde considered to be: That both in eczema and acquired syphilis, when a distinctly vesicular or bulbous eruption becomes suddenly apparent, the lesions intermingled with those characteristic of the disorders named, in the person of patients who have been under inexperienced practitioners, the possibility that the iodide of potassium has been previously administered should be carefully estimated.

A discussion of great interest followed the reading of this paper, and was participated in by Drs.

White, Taylor, Wigglesworth, Van Harlingen, and Duhring.

On motion of DR. BULKLEY the thanks of the Association were unanimously tendered the President for his able and valuable paper.

On motion of DR. WIGGLESWORTH, it was decided that the Association should devote the afternoon of Thursday, August 28th, to an inspection of such cases of interest as the various members might like to present, and on motion of DR. HYDE, that a committee of two should be appointed by the chair to select a suitable place for the purpose, Drs. Bulkley and Taylor were the gentlemen selected to constitute this committee.

FIRST DAY—AFTERNOON SESSION.

The first paper in order was one by DR. BULKLEY ON TWO CASES OF CHANCERE OF THE LIP, PROBABLY ACQUIRED THROUGH CIGARS.

Both of the sufferers in these cases were physicians of skill and intelligence, and they were each entirely unable to trace their syphilitic trouble to any other source of infection than the above.

DR. HEITZMANN, in commenting on one of these cases which he had personally seen, stated that the sore in the mouth was to all appearances nothing but a chancre, and that there was also a similar lesion on the penis, which had been caused by matter carried from that in the mouth by means of the hands. In view of facts like this, he thought that the doctrine of duality was no longer tenable, as, indeed, Hebra and other high authorities had long ago concluded.

DR. BULKLEY attributed the absence of hardening to the fact that at the time referred to by DR. HEITZMANN the patient had been taking mercury for three weeks; and he also stated that in his experience he had not found chancres on the lip so hard as those on the prepuce.

Both Drs. WHITE and TAYLOR were of the opinion that the evidence which Dr. Bulkley had adduced was hardly sufficient to prove that the two physicians whose cases he had related had become infected with syphilitic poison in the manner indicated. Dr. Taylor also stated that he was very much startled by Dr. Heitzmann's remarks on the subject of dualism. As for himself, he believed that as sure as there was a sun in the heavens, there were two forms of disease, and he then proceeded to mention some of the investigations by the most distinguished authorities, on which the so-called dualists based their opinion. After some further remarks by Drs. Atkinson, Wigglesworth, and Bulkley, Dr. Fox read a paper on

THE TREATMENT OF ECZEMA AND ULCERS OF THE LEG BY AN ELASTIC TUBULAR BANDAGE.

This bandage was to be applied by slipping it over the foot on to the leg, the limb having first been oiled; and among the advantages claimed for it were, its lightness, the equal pressure which it exerted, the saving of time and trouble (since it was not necessary to remove it in order to clean the parts), and its cheapness, due to the fact that so little rubber was required in its construction.

The third paper during this session was by DR. HEITZMANN, ON

MICROSCOPICAL STUDIES ON INFLAMMATION OF THE SKIN,

in the course of which he stated that his observations had led him to the following conclusions:

First. In epithelium the first step of the inflammatory process consists in an increase of the living

matter, both in the protoplasmic bodies and between them; the former producing the coarse granulations of the epithelia, and the latter the thickening of the so-called "thorns" in the current substance. Any particle of living matter both in the epithelia and between them, through continuous growth, may lead to a new formation of epithelia, with the termination in hyperplasia of epithelium. (Seen in psoriasis, squamous eczema, horny formations, etc.)

Second. In connective tissue the first manifestation of the inflammatory process is the dissolution of the basis substance and reappearance of the protoplasmic condition. By this process and the new formation of medullary elements, which may start from any particle of living matter, the inflammatory infiltration is established. The sum total of the inflammatory elements, which remain united with each other by means of delicate offshoots, represent an embryonal or medullary tissue. If the new formation of medullary elements be scanty, the resolution is accomplished by reformation of basis-substance. (Seen in erythema, erysipelas, etc.) If, on the contrary, the new formation of medullary elements be profuse in new formation, connective tissue, or hyperplasia, will result. (Seen in scleroderma, elephantiasis, etc.)

Third. The plastic (formation) inflammation may be accomplished by the accumulation of a larger amount of serous or albuminous exudation in the epithelial layer (seen in miliaria, sudamina and herpes), or in the connective tissue of the derma (as in urticaria). In both instances complete resolution will ensue.

Fourth. Suppuration in the epithelial layer of the *rete mucosum* is produced by an accumulation of an albuminous or fibrinous exudation, by which a number of epithelia are destroyed, and by new formation of pus-corpuscles from the living matter of the epithelial elements themselves. Epithelial suppuration heals without the formation of a cicatrix. (Seen in eczema matidans, impetigo, and pemphigus.)

Fifth. Suppuration in the connective tissue of the derma results from the breaking apart of the newly formed medullary elements, which, being suspended in an albuminous or fibrinous exudation, now represent pus-corpuscles. Pus is a product of the inflamed connective tissue itself, and always a result of destruction of this tissue. Suppuration of the derma invariably heals through a cicatrization. (Seen in abscess, furuncles, acne, ecthyma, and variola.)

ELECTION OF OFFICERS.

At the business meeting preceding the regular morning session on August 27th, it was voted that the meeting of the Association next year should be held at Newport, and the following officers were elected: President, Dr. Louis A. Duhring, of Philadelphia; Vice-Presidents, Drs. Edward Wigglesworth, of Boston, and W. A. Hardaway, of St. Louis; Secretary, Dr. Arthur Van Harlingen, of Philadelphia; and Treasurer, Dr. I. E. Atkinson, of Baltimore.

(To be concluded.)

THE MORAL EFFECT OF POPULAR BEVERAGES.—According to Dr. Boeck, of Leipsic, tea and coffee produce nervousness and peevishness, *e.g.*, the snappishness of the Chinese and the hypochondriasis of bilious ladies; beer brutalizes, wine impassions, whiskey infuriates, but eventually unmans. Alcohol in general, when combined with a fat and flesh diet totally subjugate the moral nature. Chocolate alone is an innocent drink.

OBSTETRICAL SOCIETY OF LONDON.

W. S. PLAYFAIR, M.D., F.R.C.P., PRESIDENT, IN THE CHAIR.

(FOR THE MEDICAL RECORD.)

THE USE OF THE FORCEPS AND ITS ALTERNATIVES IN LINGERING LABOR.

THE noteworthy debate inaugurated in the London Obstetrical Society by Dr. Robert Barnes has been continued. The fair and impartial discussion which this question has received at the hands of those thoroughly competent to speak upon the subject must carry with it practical and permanent benefit to the whole profession.

In the very able paper read by Dr. Barnes, the following propositions were presented as likely to give rise to an expression of differences of opinion:—1. In lingering labor, when the head is in the pelvic cavity, the forceps is better than its alternatives. 2. In lingering labor, when the head is engaged in the pelvic brim, and when it is known that the pelvis is well formed, the forceps is better than its alternatives. 3. In lingering labor, when the head is resting on the pelvic brim, the liquor amnii discharged, and it is known that there is no disproportion or only a slight disproportion, even although the cervix is not fully dilated, the forceps will generally be better than its alternatives. 4. In proportion as the head is arrested high in the pelvis, in the brim, or above the brim, the necessity, the utility, and safety of the forceps becomes less frequent. 5. As a corollary from the preceding proposition, increasing caution in determining on the use of the forceps, and greater skill in carrying out the operation, are called for.

At the next regular meeting following that in which the paper was read, the discussion was opened by Dr. Edis, who remarked, with reference to expectancy, that unfortunately too much was expected of the patient and too little of her attending physician. Not infrequently is the woman, at the commencement of her labor—a really trying process that calls for an immense expenditure of muscular force—found without proper preparation, having for a long time, perhaps, had only disturbed sleep, partial digestion, and improper performance of body functions.

But, on the supposition that she is as well prepared as possible for her ordeal, there is much that can be done in seeing that an actual waste of her physical power does not occur. On this basis it was argued that the judicious use of the forceps was an aid which supplemented the defective efforts of nature, and that the medical attendant therefore should not look upon instrumental delivery as a *dernier resort*.

So soon as there is any general evidence, as established by the condition of the pulse, power, and pains, that the woman has a task which she cannot readily perform, it is the duty of the accoucheur to prevent her from falling into powerless labor. Under such circumstances recourse may be had to the simple means of affording aid by external pressure over the uterus, which Dr. Atthill regarded as unscientific and calculated to be injurious, or by applying the binder; but these having failed to give prompt relief, the forceps should by all means, says Dr. Edis, be used in preference to ergot.

It has been a belief, extensively accepted, that a prolonged first stage of labor does not entail danger upon the mother and the child. Dr. Edis gave an emphatic negative of this proposition—regarding the woman as in the first stage until the os is completely dilated—and cited cases in confirmation of the view

entertained. As bearing upon the treatment of such cases, Dr. Barnes asked, "Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri?" To this question Dr. George Johnston replied that in cases in which the liquor amnii had escaped at the commencement of labor, and before the os is fully dilated, the forceps are necessary and useful to avoid the danger to the mother which accrued from pressure of the child's head, especially if there is any delay with the head at the brim. Even though the membranes are not ruptured, the timely use of the forceps under such circumstances may save the woman's soft parts from inflammation and sloughing. Instrumental delivery at this stage certainly saves the child from the danger incident to compression of the placenta and consequent death from obstructed circulation. At the same time, Dr. Johnston is very strong in his statement that the application of the forceps and traction through an undilated os is justifiable only when such an os is dilatable. The conclusion reached by Dr. Johnston was that, in course of time, the forceps in skilful hands will prove to be of the greatest advantage in saving the life of both mother and child.

From November, 1875, to May, 1879, 3,958 women were delivered in the Rotunda Hospital, Dublin. From the experience which Dr. Lombe Atthill obtained during that period, as master in that institution, he thinks that no practitioner of experience should say that the forceps should not be used because the os is not fully dilated, although under such circumstances the instrument should be employed as rarely as possible. When the os is not fully dilated, Dr. Atthill objects to the use of the forceps, no matter where the head is, unless the condition of the mother calls for its use. He feels satisfied that the danger from the use of the forceps, before the os is fully dilated, is underestimated by some because they fail to distinguish between two very different classes of cases. In some cases the os is so soft and easily dilatable that delivery is effected with the greatest possible ease and safety, although a most unjustifiable procedure. The cases to which he refers are those familiar to every physician with any extended obstetric experience, in which a uterine pain will cause the os uteri to all but disappear, yet, as the pain subsides, the head speedily recedes and the os contracts to the same size as before. These cases, manifestly, are to be placed among those in which the os is dilatable, and in them the use of the forceps, by unanimous consent, is easy and safe, and may be justifiable. "But," says Dr. Atthill, "it is far different with another class of cases," and from this point he discusses the question with reference to an "undilated cervix" which often opposes delivery. The danger in attempting forceps delivery in cases of undilated cervix has induced him to avoid the use of the instruments, when possible to do so, until the os uteri is fully dilated. In cases, however, in which delivery is imperative before the os is dilated, he does not hesitate to use the forceps in preference to employing version, notwithstanding the obstacle to easy delivery which an undilated cervix may offer. His practice, then, is to use the forceps when the head is low and the os fully dilated; but when the os is not fully dilated, he uses the instruments with the greatest possible hesitation.

With reference to ergot its use is prohibited in the Rotunda—and abdominal compression and introduction of the fingers into the rectum Dr. Atthill regards as unscientific and most irksome both to the patient and practitioner. The use of the forceps before the os is fully dilated, where there is some difficulty of extrac-

tion, he believes does not contribute much to saving the life of infants.

The discussion was continued by Dr. McClintock, who confined his remarks to the use of the forceps in the high and the low operations. Dr. McClintock, like Dr. Barnes, cautiously and wisely avoids drawing fixed conclusions, and discards such statistics as we have as almost valueless. Contrary to the belief expressed by Dr. Edis, Dr. McClintock states, "It is one of the most generally true maxims in midwifery, that so long as the membranes are entire and the liquor amnii present, no danger will accrue to either mother or child by the continuance of the labor process, except from convulsions or hemorrhage."

It is important, therefore, in speaking of the first stage of labor, to bear in mind the presence or the absence of the liquor amnii, as all readily admit that the use of the instruments in this stage, in purely lingering labors, is especially influenced by the absence of the amniotic fluid. Dr. McClintock, in opposition to the practice of Dr. Johnston, entirely dissents from using the forceps while the membranes are intact. In his estimate of the value of the forceps in the high operation, he agrees mainly with Dr. Barnes in the statements that the necessity for this operation is not frequent; that it is not without danger in skilful hands; and that extra judgment and skill are required in deciding upon and carrying out the operation when the head is high above the brim, and the os uteri is only imperfectly dilated. Under the last circumstances he entirely disapproves of the use of ergot. But when the head is in the pelvis, and there is no mechanical obstacle to its expulsion, ergot in his hands has acted most satisfactorily, and, in opposition to the statement made by Dr. Barnes, he does not object to its use. His position is that it does the child no harm if it does not produce uterine contraction; if it does excite the uterus to action it involves danger to the child, to be sure, but it expedites labor to such an extent that timely interference rescues the child, hence it is preferable to the forceps.

This is the position assumed by a man of deserved reputation and great experience, and yet it carries with it an element of danger which needs careful watching, and the forceps may be required to effect a safe escape. This Dr. McClintock recognizes, for he says that if the drug fails to deliver prompt enough, the accoucheur is just as capable of delivering with the instruments as if it had not been given.

With reference to the low operation he believes that, notwithstanding the too frequent use of the forceps at the present time, the policy of procrastination formerly employed lacks the advantages which obtain in the more frequent use of the instruments.

Dr. Bassett agrees substantially with Dr. McClintock regarding the use of ergot, and thinks the charge against the drug has been somewhat overdrawn. If the ergot fails to produce the desired result—prompt delivery after the head has reached the floor of the pelvis, if there is no mechanical obstacle—the forceps can at once be employed.

Although the os—he makes no discrimination between os and cervix—is only partially dilated, he thinks less harm will come to the patient by the use of the forceps if the operation is prudently undertaken, than if other methods of treatment are employed.

In speaking of the resistance offered by a rigid cervix uteri to the progress of labor, Dr. Henry Bennett holds that it is always due to pathological conditions, such as chronic inflammation; hence the inutility of many of the agencies resorted to for overcoming it.

A former assistant-master of the Rotunda Hospital, Dr. Cranny, holds that there are many cases in which the necessity for the early use of the forceps exists, especially to prevent undue exhaustion, and sloughing and its consequences, but the suitable cases are those in which the os uteri is dilatable and soft, and the cervix is not rigid. The safety of this rule is apparent, and it conforms to views held generally by those who participated in the discussion.

Throughout the discussion there is the same notable absence of statistics bearing upon the condition of the woman subsequent to instrumental delivery, as was manifest at its commencement. The statistical information given bears upon the life of the mother and the child. Under this head Dr. Cranny refers to statistics to show that the early use of the forceps has decreased the number of craniotomies, and has contributed to the saving of the life of the child.

One can readily see, however, that statistical information must be of the purest quality to be of practical value to the general practitioner who, in the same day, perhaps, may be called upon to operate for strangulated hernia, amputate a leg, treat a case of ophthalmia neonatorum, remove a foreign body from the ear, and deliver a child by means of the obstetric forceps; for rules may be framed out of statistical evidence and medical testimony that will, in the hands of one man, yield results not only highly beneficial, but entirely innocuous, while in the hands of another they will be equally dangerous and undeserving of adoption. The mechanician of only ordinary skill must be restricted by rules which for the expert are entirely unnecessary. Hence the difficulty in giving general rules for the guidance of the general profession, which embraces among its members a subsequent disputant who had attended lingering labors, during the last twenty-five years, in a maternity hospital, which he acknowledges is a small one, in which the patients did "very well" without the forceps, although the parturient process lasted perhaps two days.

Dr. Roper, in speaking of the application of forceps in the *first* stage of labor, that is, in cases in which dilatation of the os goes on slowly while it receives the pressure of the bag of membranes, or the presenting head, when the liquor amnii is discharged, remarked that he had not seen the absolute necessity of delivery by forceps when the os is only partially or even four-fifths dilated, in order to avoid serious consequences to the maternal structures and danger to the life of the child. In a case of simple labor, prolonged only by a physiological rigidity of the os uteri, Dr. Roper has not seen evil results from a protracted first stage of labor. Such results are not liable to occur for the reason that, even though the membranes be ruptured and the liquor amnii discharged, there is no continuous pressure. Persistent contraction and impaction of the head do not, says Dr. Roper, occur in connection with the first stage of labor.

From Dr. Collins' and Dr. Roper's experience we derive the practical observation that "the death of the child, as a rule, precedes injury to the maternal structures," so that if the fetal heart can be heard it is presumptive evidence of the safety of the soft parts of the mother.

If this be true, it seems to us that some other explanation must be given for the frequent occurrence of vesico-vaginal fistule than that which, in this country at least, has a somewhat general recognition, namely, delayed delivery after impaction of the head occurs; for this lesion exists in numerous cases in which the child was still-born.

With reference to the frequent use of the forceps in

the first stage of labor only when the os is dilatable, seems, according to Dr. Roper, to be unnecessary, because the head of the child will soon expand it and allow delivery to take place. He also disapproves of the practice of carrying the obstetric forceps to every case of labor, and using the instrument without the existence of any factors of difficulty, simply for the purpose of diminishing maternal suffering. For he believes that such practice carries with it risks of liability to post-partum hemorrhage, and the gynecological work that follows interference with the natural functions of the uterus in child-birth.

In speaking of the use of the forceps in the *second* stage of labor, he gives the result of his observations in two classes of cases:

First, those in which everything seems to be favorable to a quick delivery; the soft parts are lax, the child's head lies loosely in the pelvic cavity, and the labor is protracted simply through uterine atony. Such cases he believes always terminate naturally by expectancy; but if importunities of friends, or other apparently uncontrollable circumstances force a forceps delivery, it should be accompanied by the subcutaneous injection of ergotine. He uses ergot, not as an alternative of the forceps, but as an adjuvant.

In the *second* class of cases the features of the labor are just the opposite of those just described; the women are usually primiparous, the uterus acts powerfully, the pains are frequent, regular, and of an expulsive character, and the expulsion of the child is resisted by the tonicity of the soft parts of the outlet of the parturient passage. Every obstetrician can recall such cases, in which the head, with every pain, is forcibly crowded against the soft parts, the perineum becoming distended to the thinness of parchment, and yet it does not pass over. The pain ceases, the head retreats, all tension is relieved, the placental circulation is restored, and then another pain comes, and so the case goes on, nature admirably using the force, little by little, which is to relax the rigid soft parts and mould the fetal head. So long as the uterus continues to act forcibly and rhythmically, the indication for the use of the forceps has not arrived, but when warned by less movement of the head, by less forcible uterine contractions, the instrument should be used, and not allow the labor to come to a cessation. Experience teaches the obstetrician to anticipate such a dead-lock, and to resort to artificial delivery before the crisis arrives.

An important feature of Dr. Roper's remarks is the statistical argument which he makes against the frequent use of the forceps, based upon the practice in the Rotunda Hospital during the masterships of Dr. Collins and Dr. George Johnston. The former used the forceps but very rarely, 1 in 608; while the latter employed them very frequently, 1 in 10; and the results seem to prove that the frequent use of the forceps does not tend to save the life of either the mother or the child. As already stated, however, statistics are so liable to be varied by uncontrollable influences, that arguments based upon them must be looked upon with suspicion.

Dr. Braxton Hicks gives a prompt and affirmative answer to the question, "Does lingering labor occur, so as to entail danger to the mother and child during the first stage of labor?"

The cases in which he recognizes this danger are those attended by trismus of the uterus, the fetus being held for a long time after it should have been delivered. It is in such cases that he admits the use of the forceps even before dilatation of the cervix, but holds the reserve that "how often" is a matter of

further consideration. He believes that death is not likely to occur in a woman from simple detention in the first stage, so long as the pulse remains of normal frequency, and that interference under such circumstances is apt to be followed by such complications as retention of the placenta, lax uterus, and hemorrhage; at all events, there need be no fear or dread that the woman will die of exhaustion. When, however, a condition of trismus is developed, and the uterine contraction passes into the interval between uterine pains, the time for interference has arrived, and then the milder alternatives, opium, slight anaesthesia, may be tried, certainly not ergot, and if these do not produce relaxation resort should be had to traction.

With reference to the second stage, he puts a hypothetical case; suppose the uterus to be at work, the pains at the maximum, and an obstacle occurs; then if it is known that a small amount of traction will bring the child out quickly, he believes it to be beneficial to the mother and certainly to the child to abstract it gently and quietly, but to draw out the child when the uterus is not responsive is one of the most critical things that can be done. He assents to Dr. Barnes' fourth proposition. Dr. Cleveland assents to the same proposition with its corollary, believing that it means that the operation shall not be lightly undertaken. He is of the opinion that it is pretty generally accepted that when the head is well in the pelvis, no progress is being made, no obstacle exists, and the obstetrician is satisfied that the uterus has done its best, the forceps is better than any of its alternatives. He favors the employment of the long forceps, and while he regards it as rare indeed that an operation is required for a purely lingering labor, he does not believe that mischief is likely to accrue to the woman by the skillful use of the instrument, if necessary to employ it. He uses the long forceps for the reason that there are cases in which the arrest is above the brim, and although the os is not well dilated, service is done by the use of the instrument, while to wait until the head comes within reach of the short forceps is positively detrimental.

Dr. Daly, from an experience obtained by an attendance in 1,700 private cases, reaches the conclusion that when the head is below the brim of the pelvis there need be no limit to the frequency with which we may apply the forceps, so as to save the suffering woman from unnecessary pain, without increasing in any degree the risk to mother or child.

Dr. Graily Hewitt agrees with Dr. Hicks, and answers in the affirmative the question: Does lingering labor occur so as to entail danger to the mother and child during the first stage of labor? Is the application of the forceps ever necessary or useful before the full dilatation of the cervix uteri? In answering this question Dr. Hewitt turned attention to the definition of the termination of the first stage of labor, an important point, and one overlooked by the speakers by whom he was preceded, and although he does not give a direct definition himself, yet we are left to infer that it is marked by a dilatable os, and without special reference to the position of the head. With very few reservations, he believes that when the membranes are unruptured, the first stage may be allowed to go on a considerable length of time. With reference to the broad question as to the use of the forceps, Is it a good thing that the forceps should be largely employed, or is it proper that their use should be greatly restricted? He sympathizes with those who contend that the instruments should be largely employed, and he encouraged the use of the forceps much more frequently than has been the cus-

tom; for the dexterity which should be acquired in the performance of the simpler operations will invariably lead to qualifications sufficient to allow dealing with the difficult and dangerous cases. Another important point brought out by Dr. Hewitt was that it did by no means follow that, after the application of the forceps, the delivery should be made to occur as rapidly as possible. By instant extraction much mischief may be done, for the instrument is intended simply to supplement nature.

Dr. Swayne's experience leads him to three conclusions: *First*. That the use of the forceps is proper and safe before the os is fully dilated, when there is any arrest which prevents it descending upon the os uteri; but in his opinion the use of the forceps is improper when the delay arises simply from rigidity, and not from arrest of the head. *Second*. In cases in which the head is arrested at the brim of the pelvis, and the pelvis is normal and not irregular in shape, as a general rule the forceps is preferable to turning. *Third*. When the pelvis is irregular, and the head very high above the brim, turning is preferable to the forceps.

The President of the Society, Dr. Playfair, again pointed out what he has always directed attention to whenever speaking of the use of the forceps, namely, that instrumental interference should be resorted to with frequency only in one particular class of cases, and that is, the cases in which the head is arrested low down in the cavity of the pelvis or on the perineum, and in which only a slight *vis à tergo* is required to effect delivery. The high operation he regards as one to be approached with the very greatest hesitation. With reference to ergot as an alternative he thinks there is hardly any fact in medicine more certainly proved than the immeasurable superiority of the forceps in effecting delivery in retarded labor. Dr. Playfair also speaks strongly in favor of the use of the forceps to relieve the woman of hours of horrible suffering.

According to his experience the cases in which it was necessary, or even contemplated, to use the forceps with an undilated os, are of very great rarity. Again, regarding systematic pressure to the uterus, he did not agree with Dr. Roper, but believed that the very greatest possible advantage may be obtained from it.

In closing this most important and useful discussion, Dr. Barnes alluded to one or two points upon which there was a unanimity of opinion, and their reproduction will be of value.

The head of the child should not be allowed to remain in the pelvic cavity very long. To this there was a general assent. At the same time, Dr. Barnes thought it not good practice to put in the forceps as soon as the head is within reach, as recommended by Dr. Daly, and some others. So long as the uterus is acting fairly without spasmodic action, the head advancing slowly and the parts relaxing, and it is evident that the woman will be delivered within a few hours without notable tax upon her powers, and so long as the pulse is quiet and regular, the use of the forceps is not judicious.

With reference to ergot, the majority of those who participated in the discussion disapproved of its use to terminate a lingering labor. Dr. Barnes was especially emphatic upon this point, and while he admits its use when the head is nearly on the point of being born, he believes that in any of the higher cases it will not do anything which cannot be done more effectively and more safely by the forceps.

Three eminent gentlemen—Dr. Hicks, Dr. Hewitt, and Dr. Barnes—agree that lingering labor occurs in

the first stage of labor, and in those cases expectancy is bad if trusted to alone. In such cases Dr. Barnes allays the muscular spasms of the uterus by the use of nitrite of amyl, puts in the forceps and delivers the woman. He says that this remedy is superior to either chloroform, chloral, or opium, which are valuable in the order named. In conclusion, he remarks that the utility, the necessity, and the safety of the forceps becomes less frequent as we ascend above the pelvic brim; but in the use of the instrument we have not advanced so far as to realize the scientific dream of Dr. Tyler Smith, that craniotomy is on the point of abolition. Craniotomy, however, as an alternative of the forceps, will diminish more and more as skill is acquired in the use of the forceps, and as the instrument is improved and given more power.

Notwithstanding the immense value of the forceps, it must not be forgotten that it is an instrument that is liable to great abuse, and the thanks of the profession are due to Dr. Barnes for inaugurating a discussion upon so practical and important a subject.

Correspondence.

THE PORTRAIT OF CRAWFORD W. LONG.

ITS PRESENTATION TO THE GEORGIA LEGISLATURE, IN ATLANTA, ON AUGUST 22, 1879.

ADDRESS OF SENATOR GORDON IN BEHALF OF THE DONOR, MR. H. L. STUART, OF NEW YORK.

(Special correspondence of THE MEDICAL RECORD.)

At an early hour on Friday, August 22, 1879, the galleries of the House of Representatives of the Legislature of the State of Georgia were filled with a brilliant assemblage of ladies and gentlemen, to witness the ceremonies of the presentation of the magnificent portrait of Dr. Crawford W. Long, a native of Georgia and the discoverer of the anæsthetic properties of sulphuric ether.

The painting is pronounced by competent observers a magnificent and faithful specimen of art portraiture, and seems a living reality to those who knew best the calm, thoughtful face of the physician whom it represents.

It is the generous and noble gift of Mr. H. L. Stuart, of New York, and was presented through Hon. J. B. Gordon, a member of the Alumni Association of the University of Georgia, and United States Senator.

At 11 A.M., General Gordon, Governor Colquitt, Senator Hill, and others, escorting the female relatives, wife and daughters of Dr. Long, entered the hall, preceded by the Senate in a body.

Speaker Bacon introduced General Gordon, who prefaced his presentation address by the following letter, read by the Clerk of the House:

"NEW YORK, August 12, 1879.

"HON. J. B. GORDON.

"DEAR SIR:—Will you do me the favor, as a member of the Alumni Association of the State University of Georgia, to present in my name the accompanying portrait (painted by F. B. Carpenter) of Dr. Crawford W. Long, a late member of this association, and the demonstrated discoverer of surgical anæsthesia by the use of sulphuric ether, March 30, 1842; to be placed in the Capitol of the State of Georgia, under their control and supervision.

"I desire to do this in honor of the memory and just fame of this eminent physician and useful citizen, to make his record complete as the discoverer of anaesthesia.

"Providence seems to have intervened to prevent the final settlement of this vexed question until the claims of this modest, unpretending, and gifted man, who really made the discovery, were fully demonstrated by Dr. J. Marion Sims, a native of South Carolina, also a discoverer and a benefactor of humanity scarcely second to Dr. Long himself. His labors in Alabama, which led to the founding of the Woman's Hospital of the State of New York, have also resulted in giving him a world-wide fame as surgeon and investigator.

"It is fitting that these two eminent southern men should both be represented, as they are, in Mr. Carpenter's picture.

"Very respectfully and faithfully your friend,

"HENRI L. STUART."

The words of the gifted senator were eloquent and soul-stirring, and would that the space allotted us permitted of their entire reproduction. We must, however, only select such as seem to us to be the choicest sentences.

"I am here to ask your acceptance of that trust as a feeble and too tardy recognition of that great discoverer's claims to the homage of his countrymen and the gratitude of mankind.

"It so happens that we are indebted mainly to Dr. Marion Sims, also now a resident of New York, a native of South Carolina, himself a benefactor through his discoveries, for the final and almost unquestioned recognition of Dr. Long as the real discoverer of anaesthesia, a science which may be defined, if the medical fraternity present will pardon me, as the science of paralyzing the sensibilities of the human frame to physical suffering, without the destruction of human life—of relieving and almost annihilating the extremest pains to which man is subjected.

"It was thus reserved for one of our own fellow-citizens to make this great discovery, and not only confer a signal triumph upon Georgia, but a blessing upon the human race, which is beyond the power of language to express or the imagination to conceive; an impartial history will abdicate its truest and its holiest mission, if it does not place the name of Crawford W. Long on the same scroll with those of the immortal Jenner, and John Howard, of England, the world-renowned philanthropist, or by the side of the imperishable names of any age.

"This recognition of Dr. Long as the discoverer of anaesthesia, I repeat, has been too long delayed, if it could have been otherwise; and Dr. Long must have so felt it. It is true that other great discoverers have lived and died without witnessing or even anticipating the best results to flow from their discoveries to the world. Franklin, for instance—the far-seeing Franklin—as he sent his little kite flying to meet the clouds and drew thence lightning to the earth and demonstrated its identity with electricity, little dreamed that he held within his grasp a mighty agent which was soon to become subservient to the will of man, to sweep around the globe at man's bidding, outstripping the sun in its flight, and bearing intelligence to man on its wings of fire. But not so with Dr. Long. As he stood, a modest, unpretending physician, in the county of Jackson, on that 80th day of March, in the year of Our Lord, 1842, testing his discovery upon his patient, he must have felt even then, in the very incipency of his discovery, what a priceless boon he was about to confer upon the hu-

man race. And as, with eager eye and throbbing brain, he looked from the result of this experiment over the vast field of human suffering which lay before, he must have lifted his heart in thankfulness to God that He had permitted him to be so great an instrument in the alleviation of physical anguish.

"In the name of truth then, of justice, of science, of humanity and of religion, I commit to your keeping, representatives of Georgia, the claims and fame of our fellow-countryman and humanity's benefactor, Dr. Crawford W. Long."

Senator Gordon was frequently interrupted during the delivery of his address by bursts of applause.

Speaker Bacon then introduced Representative Benjamin C. Yancey, who received the portrait on behalf of the Alumni of the University.

Mr. Yancey reviewed at some length the history of anaesthesia by ether, a summary of which is contained in the following sentences:

"But the historic facts show that Dr. Long's claim antedates Wells's by two years and eight months, and Morton's by four and a half years, and that we are justified, on the basis of truth, to make this public recognition to-day. I am indebted for most of these facts to the pamphlets of Dr. J. Marion Sims and Dr. J. M. Taylor, of Mississippi."

He then paid an elegant compliment to the donor, after which he read a poem written by one of Dr. Long's daughters soon after the death of her father, which seems filled with the spirit of prophecy. One of the verses reads as follows:

Bright shining through the trees the sunbeams play
And glid the ground;
They glimmer on the tombs of those who lay
At rest around.
O'er thee, dear one! no stately column rears
Its lofty head;
Thy life, thy noble life, is all that cheers
Thy humble bed.
Though known to few, thy unrewarded fame
Was truly won.
Some day, thy nation's heart will proudly claim
Her gifted son.

The address of Mr. Yancey was loudly applauded by the cultured audience, and the event was a red-letter occasion in the history of the State, and its proceedings are embalmed in its records.

ELECTRO-THERAPEUTICS AND THE AMERICAN NEUROLOGICAL ASSOCIATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I cannot agree with Drs. Smith and Rockwell in their depreciation of the tone of the discussion at the late meeting of the Neurological Association, because of its admission of great differences of opinion among electro-therapeutists. It seems to me that if any question in science or art is a mooted one—is one about which there are legitimately great differences of opinion, it is far better to have that question freely discussed, and to have the differences of opinion, and the reason for those differences, clearly defined, than it is to throw a silence over honest doubts. Where there are clashing views the truth is not yet established, and it can only be brought fully into the light by careful observation and unrestrained discussion—observation to obtain facts, discussion to criticise them and their bearings. Dr. Smith would seem to believe, however, that the discussion had run upon settled questions, for he uses this strong language: "I have used electricity many times a day

for the past ten years, and have proven to my satisfaction that the pole used, the direction of the current, and the battery employed, are of great importance. This can be demonstrated beyond quibble or doubt by any physician of ordinary intelligence, by trying the different poles on the following diseases," etc. Let us inquire what other men think. Dr. Russell Reynolds ("Lect. Clin. Uses of Electr.," 1874, p. 18,) says: "It may occur to you to ask what current should I use to relieve pain and spasm, the direct or the inverse? All I have to say is, that so far as I have seen it does not make the smallest difference. Theoretically, it should make a very great difference, but practically, so far as my observations extend, it makes none." Benedict, of Vienna, expresses himself in this way: "I have convinced myself day by day that all the so-called facts in regard to the therapeutic efficacy of the different directions of the current are nothing more than theoretical assumptions." (Quoted by Teissier, "De la valeur thérapeut. des courants continus," 1878, p. 40.) Hitzig, Brenner, Chauveau, are equally sceptical in regard to the direction of the current—they are all quoted by the last-named author. De Watteville, in his late work, which is the best extant, writes: "The anodyne and stimulant effects attributed to the positive and negative pole respectively are rarely realized in practice. In most cases it would seem that the curative effects are due more to the general influence of 'the current' properly applied, both as to strength and place, than to any specific action of pole. The same remark, it must be confessed, may frequently be applied to the direction." ("Med. Electricity," 1878, p. 89.) These gentlemen do not hold the same opinion as does Dr. Smith, and yet there can be found members of the profession who have regarded Russell Reynolds, Benedict, Hitzig, Brenner, Chauveau, and De Watteville as *men of ordinary intelligence*. Did your space not forbid it, Mr. Editor, other names could be cited.

I do not think that my position in this matter has been fully understood. I do not pretend to deny that in physiological experiments, in which a nerve or a muscle, or a spinal cord, or a brain, is laid bare, there is a difference in the direction of the current or in the poles; nor do I deny that in certain diseased conditions of nerve and muscle and spinal cord, there will be a difference *diagnostically* between the two poles; but I do deny that for *therapeutic* purposes there has been *proven* to be a difference between the poles or between the directions of the current, except in the case of the face and possibly the uterus. It is possible that these differences may exist therapeutically, but the evidence of them is very fragmentary and inconclusive.

I doubt, however, whether we shall obtain these differences with our present batteries in the limbs and the body, where the nervous and muscular structures, and the viscera, lie comparatively so deep and are covered by such thick structures, often bad conductors, as to necessitate great diffusion of the current. In the face, the facial and trigeminal nerves, and their foramina of exit, are so superficial that they approximate closely to the condition of the bared nerves and muscles of the physiological experiment, and the current can more readily be made to impinge directly upon them.

LANDON CARTER GRAY, M.D.

BROOKLYN, August 18, 1879.

THE AMERICAN PHARMACEUTICAL ASSOCIATION will begin its twenty-seventh annual meeting at Indianapolis, on Tuesday, September 9, 1879, at 3 o'clock P.M.

Obituary.

SAMUEL B. W. MITCHELL, M.D.

DR. MITCHELL died on Saturday, August 16th, at Spring Hill Station, Delaware County, Pennsylvania, in the fifty-second year of his age. He was a Philadelphian by birth, and graduated from the High School and the University of Pennsylvania, and later from the medical department of the University. At the breaking out of the war he served as surgeon in the Eighth Pennsylvania Cavalry, and was at the same time brigade-surgeon. He subsequently was appointed in charge of the cavalry corps hospital at Appomattox, on the James River, and continued in charge for some time. During his administration this hospital is said to have been one of the very largest, neatest, and best managed camp-hospitals in the service. Its efficiency and general thoroughness were attributed to the excellent executive ability of the surgeon in charge. Indeed, this very quality was said to have been one of Dr. Mitchell's most prominent characteristics during his army service. At the close of the war Dr. Mitchell returned to Philadelphia, and has since resided there. He retired from the practice of medicine some years ago. The funeral was solemnized with military honors.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 24 to August 30, 1879.

HEAD, J. F., Lieut.-Colonel and Surgeon. Relieved from duty in Dept. of the East, and assigned to duty as Attending Surgeon and examiner of recruits at Boston, Mass. S. O. 195, A. G. O., August 25, 1879.

CLEMENTS, B. A., Major and Surgeon. Relieved from duty in Dept. of the Platte, and to report in person to Surgeon-General of the Army. S. O. 195, C. S., A. G. O.

HORTON, S. M., Major and Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

BREWER, JOHN W., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TREMAINE, W. S., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

VICKERY, R. S., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding-General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

KIMBALL, J. P., Capt. and Asst. Surgeon. Relieved from duty in Dept. of the East, and to report in person to Commanding-General, Dept. of the Platte, for assignment to duty. S. O. 195, C. S., A. G. O.

HOFF, J. V. R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Platte, to proceed to New York City, and on arrival there report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

ADAIR, GEO. W., 1st Lieut. and Asst. Surgeon. Upon expiration of his present leave of absence, to

report in person to Commanding-General, Dept. of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

BROWN, P. R., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival there report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

FINLEY, J. A., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to Philadelphia, Pa., and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TAYLOR, B. D., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of Dakota, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

TURRILL, H. S., 1st Lieut. and Asst. Surgeon. Upon expiration of his present leave of absence, to report in person to the Commanding-General, Dept. of the East, for assignment to duty. S. O. 195, C. S., A. G. O.

KILBOURNE, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty in Dept. of the Missouri, to proceed to New York City, and on arrival there, report by letter to the Surgeon-General. S. O. 195, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending August 30, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 23, 1879.	4	13	34	6	26	10	0	0
Aug. 30, 1879.	0	16	34	2	16	23	1	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from August 27th to September 3d, inclusive, was 164, and the number of deaths that occurred was 53. The total number of cases for this year to September 3d is 943, and the total number of deaths 270.

NEW ORLEANS.—A number of cases have appeared and a number of deaths have occurred from yellow fever in New Orleans, but strenuous efforts are being made both on the part of the local and the national authorities to stamp out the disease.

HAVANA.—Advices indicate that the disease is still prevalent, although only ninety-five deaths occurred in the week ending August 27th.

THE AMERICAN GYNECOLOGICAL SOCIETY.—The fourth annual meeting of the American Gynecological Society will be held in the city of Baltimore, Md., beginning Wednesday, September 17th, and continuing three days. The annual address will be delivered by Dr. T. G. Thomas, of New York. Mr. George W. Callender, of London, has accepted an invitation to be present at the meeting.

THE AMERICAN ACADEMY OF MEDICINE.—The fourth annual meeting of the American Academy of

Medicine will be held in the rooms of the New York Academy of Medicine, 12 West Thirty-first Street, beginning Tuesday, September 16th, at 8 o'clock P.M. The annual address will be delivered by Dr. Lewis H. Steiner, of Frederick, Md., on "The Preparatory Education most Needed by the Medical Student."

THE NATIONAL BOARD OF HEALTH AND DISINFECTION.—The Commission of experts appointed by the National Board of Health have reported a circular embodying familiar instructions for disinfection. The committee consisted of Prof. C. F. Chandler, President of the Board of Health, New York City; Prof. G. F. Barker, of the University of Pennsylvania; Prof. Henry Draper, of the University of Maryland; Prof. John Ramsen, of Johns Hopkins University; Dr. S. O. Vander Poel, Health Officer of the Port of New York; and Prof. E. G. Janeway, of the Board of Health of the City of New York. On presenting the report Prof. Chandler, Chairman of the Commission, remarked as follows: "The people must be instructed that no reliance can be placed on disinfectants simply because they smell of chlorine or carbolic acid, or possess the power of permanganate, and that in general proprietary disinfectants with high-sounding names are practically worthless." The following is the report of the Commission:

"Disinfection is the destruction of the poisons of infectious or contagious diseases. Deodorizers are not necessarily disinfectants, and disinfectants do not necessarily have an odor. The disinfectants to be used are: First, roll sulphur for fumigation; second, sulphate of iron (copperas) dissolved in water in the proportion of one and a half pounds to the gallon, for soil, sewers, etc.; third, sulphate of zinc and common salt dissolved together in water in the proportion of four ounces of salt to the gallon, for clothing, bed-linen, etc. The commission exclude carbolic acid for the reasons that it is difficult to secure the proper quality, and it must be used in large quantities to be of service. In using disinfectants in the sick-room, the most available agents are fresh air and cleanliness. The towels, clothing, bed-linen, etc., should, on removal from the patient, and before they are taken from the room, be placed in a pail or tub of zinc solution, boiling hot, if possible. All discharges should either be received in vessels containing copperas solution, or, when this is impracticable, should be immediately covered with copperas solution. All vessels used about the patient should be cleansed with the same solution. Unnecessary furniture, especially that which is stuffed—carpets and hangings—should, when possible, be removed from the room at the outset; otherwise they should remain for subsequent fumigation and treatment. Fumigation with sulphur is the only practicable method of disinfecting the house. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding, and other articles which cannot be treated with zinc solutions, should be opened and exposed during fumigation as directed below: Close the room as tightly as possible; place the sulphur in iron pans supported on bricks standing in tubs containing a little water; set it on fire by hot coals or with the aid of a spoonful of alcohol, and allow the room to remain closed for twenty-four hours. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms proportionately increased quantities. Cellars, yards, stables, gutters, privies, cesspools, water-closets, drains, sewers, etc., should be frequently and liberally treated with copperas solution. The copperas solution is

easily prepared by hanging a basket containing about sixty pounds of the copperas in a barrel of water. It is best to burn articles which have come in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows: Cotton, linen, flannels, blankets, etc., should be treated with the boiling zinc solution; introduce piece by piece, secure thorough wetting, and boil for at least half an hour. Heavy woollen clothing, silks, furs, stuffed bed-covers, beds and other articles which cannot be treated with the zinc solution, should be hung in the room during fumigation, their surfaces thoroughly exposed, and pockets turned inside out. Afterward they should be hung in the open air, beaten and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, and the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterward be removed to the open air and thoroughly beaten. Corpses should be thoroughly washed with a zinc solution of double strength, and buried at once. Metallic, metal-lined, or air-tight coffins should be used when possible—certainly when the body is to be transported any considerable distance."

PROPOSED NEW MEDICAL SCHOOL IN ENGLAND.—There is to be a new university in Manchester, England, called the Victoria University, which will in some respects supply the educational facilities to Northern England that the London university does for the south. It is proposed that a medical school be attached to it. This proposition, however, is not very warmly received by the existing medical colleges, of which there are nineteen in Great Britain. A protest was formally made against the project, signed by many eminent members of existing medical faculties.

THE PUBLIC HEALTH ASSOCIATION.—BOSTON has been offered \$300,000 by William E. Baker, on condition that half as much more be contributed by other parties.

ALCOHOL IN HOSPITALS.—There is undoubtedly a great deal more alcohol used in hospitals than is necessary, and attention is now being called to the fact by some of those having charge of these institutions in England. The success of the three London hospitals in which its use is entirely prohibited, is leading to considerable discussion on the subject.

MATRIMONY AND INSANITY.—The statistics of 8,407 patients in the lunatic asylums of Ireland, show that the unmarried were three times as numerous as the married. This would lead one to infer that the domestic life has a tranquillizing effect upon the Celtic mind.

SANITATION IN PHILADELPHIA.—The Board of Health of Philadelphia has compiled a series of practical Rules for the Management of Infants during the hot weather, prepared under direction of the Obstetrical Society. In addition, there are river-excursions and suburban sanatoria, so that the infant mortality is thought to be not so very great in spite of the intensely hot weather.

THE PATHOLOGY OF PSEUDO-HYPERTROPHIC SPINAL PARALYSIS.—In a clinical lecture upon this disease by Dr. W. R. Gowers, with a report of the autopsy, the following conclusions were given from a study of this and other reported cases. The pseudo-hypertrophic paralysis of early life is not a disease of the spinal cord; it is not, as has often been suggested, an infantile spinal atrophy similar to the common forms of progressive muscular atrophy (Cruveilhier's atrophy of adults, with a modification in the muscle changes) due to the peculiar conditions of nutrition in early life. The spinal cord after death shows various ap-

pearances, none of which are characteristic or common to all the cases. Dr. Gowers is inclined to the belief that it is a primary disease of the muscular tissue, "a congenital nutritive and formative weakness of the striated muscle substance." The remarkable relation of the disease to sex; its conspicuously congenital nature in many cases; its character as a disease of development, making its chief progress during growth; its remarkable origin from the mother—i.e., from the ovum only—a condition almost unknown in diseases of the nervous system, are all facts which harmonize better with such a theory than with any other.—*Lancet*.

COLLEGE LECTURE FEES.—All the regular medical colleges in Chicago and Cincinnati have placed the annual lecture fees at \$75, instead of ranging from \$40 to \$55, as heretofore.

ULCER OF THE RECTUM.—Dr. J. J. Fly suggests a very simple remedy for this trouble. It consists in washing the fundament and thoroughly cleansing the rectum with cold water after each evacuation to a point above the ulcer, then stuffing the rectum with dry tannin.—*Med. and Surg. Reporter*.

BOOKS RECEIVED.

A MANUAL OF MIDWIFERY FOR MIDWIVES AND MEDICAL STUDENTS. By FANCOURT BARNES, M.D. Aber., M.R.C.P. London. With Illustrations. Philadelphia: Henry C. Lea. 1879.

THE HEART AND ITS DISEASES, WITH THEIR TREATMENT. By J. MILNER FOTHERGILL, M.D. Second edition (entirely re-written). Illustrations. Philadelphia: Lindsay & Blakiston. 1879.

THE STUDENT'S GUIDE TO THE DISEASES OF WOMEN. By ALFRED LEWIS GALABIN, M.D., F.R.C.P. Illustrated. Philadelphia: Lindsay & Blakiston. 1879.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. Edited by ALBERT H. BUCK, M.D. In two large volumes. New York: William Wood & Co., 1879.

MATERIA MEDICA AND THERAPEUTICS. By CHARLES D. F. PHILLIPS, M.D., F.R.C.S.E. Edited by HENRY G. PIFFARD, A.M., M.D. New York: William Wood & Co., 27 Great Jones Street. 1879. Wood's Library of Standard Medical Authors.

CLINICAL MEDICINE: A Systematic Treatise on the Diagnosis and Treatment of Diseases. By AUSTIN FLINT, M.D. Philadelphia: Henry C. Lea. 1879.

TRANSACTIONS OF THE MEDICAL AND CHIRURGICAL FACULTY OF THE STATE OF MARYLAND. Eighty-first Annual Session, 1879. Baltimore: Steam Printing House, 9 South Charles Street. 1879.

ATLAS OF HISTOLOGY. KLEIN & SMITH, Part VI. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1879.

A CLINICAL TREATISE ON THE DISEASES OF THE NERVOUS SYSTEM. By M. ROSENTHAL. Translated by L. PUTZEL, M.D. New York: William Wood & Co. 1879. Wood's Library of Standard Medical Authors.

EYEBALL TENSION AND ITS TREATMENT. By W. SPENCER WATSON, F.R.C.S. Illustrated. London: H. K. Lewis, 136 Gower Street.

POCKET THERAPEUTICS AND DOSE BOOK. By MORSE STEWART, M.D. Second edition, enlarged and revised. Detroit, Mich.: George D. Stewart. 1878.

GUIDE TO THE EXAMINATION OF URINE. By K. B. HOFFMAN and R. ULTMANN. Translated by F. Forchheimer, M.D. Cincinnati, O.: Peter G. Thomson, 179 Vine Street. 1879.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE for 1879. 48 Church Street, Nashville, Tenn.

Original Lectures.

KERATITIS: ITS RELATION TO THE GENERAL CONDITION OF THE PATIENT.

A CLINICAL LECTURE DELIVERED AT THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF THE CITY OF NEW YORK.

By D. B. ST. JOHN ROOSA, M.D.,

PROFESSOR OF OPHTHALMOLOGY.

(Reported for THE MEDICAL RECORD.)

GENTLEMEN:—Here is a boy who is twelve years old. He is very comfortably clothed, has a good color in his cheeks, and looks as if he might have all the conditions favorable to recovery from his eye trouble. His mother tells us he has had bad eyes, "off and on," for five years. Until he was seven years old his eyes were well. The first thing she noticed was that, without apparent cause, his eyes suddenly became bloodshot, that he then had sore eyes for some time, and that when he got well there was left a "speck upon each eye very near the sight of the eye." That means over the pupil and upon the cornea.

This is a very graphic history of a case of inflammation of the cornea which went on to the result which inflammation of the cornea must reach if unchecked, and that is opacity; or, as the mother says, a "speck or spot" upon the cornea. A speck upon the cornea is a serious matter. Suppose you put a speck upon the object glass of your microscope, and then attempt to look through it, you are in the same condition as the patient who has a speck upon his cornea. It is impossible to get distinct vision through the obscure medium. Sometimes short-sightedness results from such a straining of the eye. Stand the boy before a window that has been coated with brown paint, in which there has been left here and there a fissure, and tell him to look through it upon the landscape beyond, he will strain his eyes to do so, but he will not get clear vision at any point, unless the fissures in the paint are large and clear. So it is with disease of the cornea; there is not only a blemish upon the cornea, but much more, and that is the effect produced upon the eye by the overstraining to which it is subjected by reason of the resistance offered to clear vision by the speck of opacity. Such a condition of the cornea renders it impossible for the female child to learn to sew without straining the eye, or for any child to read without the same effect, and the eye is constantly liable to new attacks of inflammation from overstraining. It would be interesting to know what gave rise to his eye trouble at the age of seven. Perhaps we cannot reach the answer to such a question, but I know, from the straightforward history of the case, that the disease at that time was something from which he did not get thoroughly well. If these inflammations are allowed to go on and involve the structures beneath the epithelium, the anterior elastic layer, and the true structure of the cornea, they will probably not get well without an abnormal physical condition. So this boy was left with a provocative to another attack of inflammation. It is also interesting to know what was the state of his general health at that time, for I have come to consider disease of the cornea as an index to the general condition of the patient. His mother says that he had the measles a short time before his eyes became sore, but that, appar-

ently, he made a complete recovery from that disease, so much so that he ate well, slept well, and was running about with the other children when the eye trouble developed itself. Judging from the evidence of the mother, and it seems to be trustworthy, the boy was in fair health and was being fed properly when this inflammation was developed, so there may have been some local mechanical cause which gave rise to the disease that has produced this change in the cornea. When asked what was done for the eyes when the inflammation first appeared, the mother says that the family physician treated it, and according to the proper rules, he did not put on a poultice, and from her account we cannot ascribe any fault to him. The case not progressing favorably, he recommended that the boy be taken to an eye infirmary, which was a very proper thing for him to do, for the people have a right to expect that he would there receive the best treatment that could be afforded. It seems, therefore, that when this boy was in a fair condition of health he was attacked with an inflammation of the eye that terminated with spots upon the cornea. This is a rather sad story, for we cannot find any condition which retarded recovery, nor any well-defined cause for the outbreak of the disease of the eyes. The case seems to come into that category in which the result is that complete recovery does not take place even under the very best of treatment. There is probably an inherent vice in the constitution of our patient, or something in his surroundings which we cannot at present find out. As illustrating this point, I remember a case in which the patient suffered from recurrent attacks of keratitis, and I was unable at first to detect any cause which I could regard as affording sufficient explanation of the recurrence. Finally, I learned that he was exposed to the acrid fumes of ammonia from a stable which opened almost into his bed-room. Taking the cue from what I saw in some students of veterinary medicine, who had keratitis, I suspected that the ammonia fumes might be the cause of the repeated attacks of inflammation in my patient. Accordingly, I had him removed from the exposure to the emanations from the stable, and, sure enough, he made a rapid and permanent recovery. There may be some such influence at work in this case, of which at present we know nothing. As yet we have found but very little in explanation of his present condition.

I will now describe his eyes. He has inflammation of the lashes, blepharitis; he has crusts at the roots of the lashes, and there are two spots upon his left cornea; there are blood-vessels running up to the lower spot, and the lower part of the ocular conjunctiva is redder than it should be.

BLEPHARITIS; ITS RELATION TO STRAIN OF ACCOMMODATION.

He has, then, blepharitis, keratitis, and that incurable condition, opacity of the cornea. What is the cause of his blepharitis? I believe I was the first to show that blepharitis depends very largely upon strain of the accommodation. I do not say that this boy's blepharitis does so entirely, but I do say that with opacity of the cornea, nearly over the pupil, he has conditions which must cause a strain of the accommodation, and I doubt not but that his blepharitis would disappear if I could remove the spots from the cornea. This blepharitis can be relieved, however—I will not say cured—because there exists the occasion for the constant lighting up of it in the strain necessary to look through an obscure medium. By simply keeping these crusts away, and putting a small quantity of grease along the borders of the eyelids,

his blepharitis will be very much relieved. Am I minute in the description and in my remarks upon this case? It is because I wish you to be minute, and to take into consideration every change, however slight, from the normal condition of the eye and its appendages. I wish you to notice the *character* of the opacities of the cornea which you see, and determine whether they are recent or old. If the opacity is old, there is no skill sufficient to remove it; but if it is recent, irritants and an improvement of the general condition of the patient may stimulate the absorbents sufficiently to cause it to disappear altogether.

In the right eye there is something much more recent than in the left. The entire eye is watery. There are also crusts at the roots of the lashes, the eyelids are red, and there are opacities upon the cornea, but they are soft. I know that these opacities are recent. I know that there is a process going on now in this eye, and that that process is an inflammatory one in the tissues of the cornea. It is an ulcer really, and fortunately it is a little below the pupil. But the boy's eyes are irremediably damaged for life. He will never have sound eyes, but he may be in a very much better condition than he is at the present time. The ulcer in the right eye may heal, and perhaps by the time he has reached twenty-one years of age the large spots upon the cornea will have disappeared. I suspect such a result, for the reason that people come to my office constantly and complain of being short-sighted, of being unable to see things well at a distance, and of not seeing objects thoroughly well even when near them. When they are brought before an ordinarily bright light you cannot see any change whatever in the cornea, but when the cornea is exposed to a strong light you can at once see that it is irregular in shape, and that there are very thin opacities. Then you know that it was once inflamed, and, upon further inquiry, you will be told that there was at one time a marked opacity of the cornea. The opacity, however, has nearly disappeared, and there remains little more than an irregular curvature at that point. Now, the patient, instead of looking through an opaque medium, is looking through a medium which does not have the requisite curvature for the proper collection of the rays of light; and there is nothing which you can do to improve the condition. So I suspect that this case may go on and get well of everything except an irregularity in the shape of the cornea.

We now have the history and the diagnosis of the case, but we have not gained much knowledge regarding its etiology, and nothing has been said of the treatment.

I have stated something with reference to *prognosis*, and I may add that it is good, so far as restoration of the eye from painful and unpleasant symptoms is concerned, but for perfect recovery the prognosis is bad.

TREATMENT.

What is the present general condition of the patient? Let us examine and see if that can be improved. He does not attend school, so that unfavorable surroundings, for eyes in the condition in which his are, do not exist. What does he do during the day? The mother tells us that he remains indoors most of the time, lies upon the sofa, etc. Doubtless, here is a circumstance which must be corrected. Disease of the cornea, as I have already said, a tissue which has no blood-vessels of its own, furnishes an index to the general health. Corneal disease, unless it be of purely mechanical origin, such as comes from

lodgment of foreign bodies in the epithelium or in the deeper structures, is an evidence of a bad condition of the general health. Something is wrong. I have not yet found what it is in this boy's case, but there is malnutrition present from some cause. At all events, we will correct his habit of spending so much of his time in the house. He must go out. But suppose he goes out in the streets of New York, which our Police Commissioners take such remarkable care of, the dust will fill his eyes, and therefore they need protection. Hence we will protect them with blue glasses. Why blue? Because they cut off the rays of light which are most unpleasant to the eye. The glasses should have a shape which will cover the front of the eye; they should have a shell-like surface, with the concavity toward the eyes. I do not mean goggles. There are but few circumstances under which goggles should be worn. They heat the eye. Furnished with a pair of glasses, the boy should be sent out into the open air; to Central Park, to Madison Park, to Washington Park, or to any park near which he may live. Send him out into the open air, and at the same time he should be occupied with some sort of amusement which will give him moderate physical and mental exercise. As a local application he is at present using sulphate of atropia, and that treatment is very proper. It is an anodyne application, and, besides, it enlarges the pupil; but in this there is some disadvantage. I wish for such cases as this we had an agent which was an anodyne, and at the same time allowed the pupil to remain unchanged. He has no iritis, hence there is no special indication for an agent which dilates the pupil. But the blue glasses will obviate a part of that disadvantage. There is another indication in the case. The eyelids must be kept clean. In the first place, all these crusts should be removed, and that can be best done perhaps by bathing with water which contains a small quantity of bicarbonate of soda. When the crusts have been thoroughly removed, the edges of the lids may be greased with a little vaseline, cosmoline, cold cream, glycerine, sweet-oil, simple cerate, or mutton-tallow without fat. When these indications are met, we have done all that we can do at present, locally. His diet should be nutritious, his sleeping-room should be so situated that an abundance of fresh air can gain admission, and in order to get his eyes well, indeed, he must be treated as though he had consumption. He should receive a bath at least three times a week, and an effort will be made to place him in a proper hygienic condition, and perhaps improvement will result. As a result of these ulcers of the cornea we may have vascular cornea, we may have the formation of an abscess in the cornea; little vesicles also occur upon the cornea—phlyctenular keratitis. This catalogue embraces nearly all the affections of the cornea.

ULCER OF THE CORNEA—AFFECTION OF THE EYE—DANGER OF ATROPIA-POISONING.

Here is another case of disease of the cornea. This baby is twenty months old. There is a white spot over the centre of this little girl's pupil. It is soft-looking, and I therefore know that it is recent. The child has nasal catarrh. It was weaned when six months old, and it is now just cutting its eye-teeth. The mother says it is being fed with whatever there is upon the table; that it receives a little tea and coffee, and that it is allowed to suck pieces of meat, all of which is wrong. Do not allow it among your patients, gentlemen. If the good Lord had wished us to eat meat at the age of twenty months, he would have given us a full set of teeth ready for use at that time.

Dr. Leaming, of this city, whom you should all know, has for some years had charge of an asylum in which large numbers of children are received and cared for, and he does not allow one of them to have anything except milk, and substances which can be dissolved in milk, until they are seven years of age. I think your professor of *materia medica* is equally emphatic upon this question, and now your professor of ophthalmology comes to you and beseeches of you to use all possible influence in the direction of having children reared upon milk alone. Not upon tea, not upon coffee, not upon meat, not upon sweet cake and puddings, but upon milk. Every physician will, under rare circumstances, prescribe beef-juice for infants, very much as brandy is prescribed upon rare occasions for small children, and I shall not quarrel with them upon that point. But I have a decided opinion that, under ordinary circumstances, no child should have anything except milk and farinaceous food until it has been provided with teeth with which to prepare other articles of diet for the stomach. Follow nature in your practice in ophthalmic as well as in every other kind of disease. I will engage, if this mother, who is anxious for her child, will listen to what I say about feeding it hereafter with milk, barley, farina, corn-starch, hominy, with perhaps a small quantity of sugar, that the teething will be easier, the bowels will be more regular, and diseases of the cornea will be less liable to occur. The ear is also in trouble. The child has then an ulcer of the cornea, and also an affection of the ear. The baby is cross because it is unhappy. As we look at the ear we see that there is pus in the auditory canal, and there is eczema behind the ear. What shall we do for this patient? We will do something for the local condition; for the eye we will order sulphate of atropia, one grain to four ounces of water. Of this a few drops should be put into the eye three times a day. The eye should also be bathed and kept clean with lukewarm water. The ear should be kept clean by syringing the auditory canal with tepid water, and a small quantity of vaseline should be used to overcome the irritation of this roughened surface behind the ear. The bowels are regular. We will also direct that small doses of iron be administered, and will tell the mother to take the baby out into the open air every day. We cannot adjust spectacles to the eyes of so young a child as this, but it may wear a shade. There is a belief, and the opinion was advanced by a reputable man, that errors of refraction cause chorea. One of the disciples, not the author himself of this doctrine—for the disciples sometimes regard themselves as wiser than the master—recommended that a child so early in life as three years should wear spectacles. You can imagine the result of the recommendation.

This child looks well clothed—too well clothed to appear in such a clinic as this—a fact which will be closely scrutinized and corrected if necessary, and it doubtless can have very many of the comforts of life.

You can now see what my lecture upon keratitis gets to be; it becomes a lecture upon *general hygiene*. For I must again state my belief that keratitis, idiopathic, not excited by mechanical injury or surgical procedure, is a constitutional affection, and requires a most careful attention to the patient's general health. It requires the attention of a general practitioner in the largest sense of the word.

DANGER OF ATROPIA-POISONING.

I suppose you are sometimes tempted to ask, Is there no danger of atropia-poisoning from the use of the agent in the eyes of such young children? We do

sometimes meet with cases in which such symptoms are developed, but the dose is so small, in a solution of the strength which we have recommended, that there is but little danger of developing *serious* symptoms. If unpleasant results are to be manifested, it is usually very soon after the administration of the remedy, and that result should have the effect of diminishing the dose. I have known children to get as red as a lobster within a few minutes after the application of a few drops of a two-grain solution to the conjunctiva, but such are exceptional cases, and, usually, you can use atropia for weeks in succession without producing unpleasant consequences. You can produce a kind of chronic conjunctivitis by using atropia too long without occasional intermissions. Therefore, you should occasionally omit the medicine for the purpose of determining whether or not it may not be keeping up the irritation. The late Dr. Ely, of Rochester, in this State, had a very good habit when he came to a case that had been under treatment for some time, of stopping everything in order that he might know how the patient was without treatment. He was like a man taking soundings upon shipboard; and it is very well sometimes, particularly after having used drugs for a considerable length of time, to stop the use of those drugs and see where your patient is. So it is in the use of atropia; you must have your suspicions aroused, after it has been used for a long time and the eye seems to be more irritable than at first, that the atropia may be the agent which produces the irritation. You will occasionally be obliged to stop the use of the remedy on account of such a result.

Original Communications.

ADENOID GROWTHS IN THE VAULT OF THE PHARYNX—THEIR REMOVAL BY THE GALVANO-CAUTERY.

By J. O. ROE, M.D.,

ROCHESTER, N. Y.

FELLOW OF THE AMERICAN LARYNGOLOGICAL ASSOCIATION.

(Read before the Central New York Medical Association, 1879.)

In the vault of the pharynx, just below the junction of the vomer with the sphenoid, is found an aggregation of glandular tissue consisting mostly of the stroma of the mucous membrane which has become more strongly developed, and containing in its meshes of network a large supply of lymphoid cells.

This tissue is ordinarily spread out somewhat thinly over the vault, and extends over the pharyngeal projection of the Eustachian tubes, and into the fossæ of Rosenmüller. Often, however, it is less flattened out, forming a sort of cushion in appearance. In some cases it is concentrated or accumulated into a more rounded mass, and is then called, from its histological composition, the "pharyngeal tonsil." At other times it is laid in longitudinal ridges or combs of various lengths, running antero-posteriorly or obliquely, and separated by fissures or lacunæ of varying depths. It is covered with ciliated epithelium, and the line of demarcation between it and the surrounding tissue can usually be distinctly traced.

Henle speaks of this tissue as conglobated glandular substance. Luschka and His describe it as adenoid, while Kölliker considers it as an increased development of the cystogenetic layer of the mucous mem-

brane; that is, resembling the lymphatic gland-tissue, with extensive distribution of lymphoid cells in the interspaces.

The existence of this glandular tissue in the vault of the pharynx was recognized long before the introduction of the rhinoscope into practical medicine; but so little was known concerning its nature and diseases that mention of it was seldom made in medical literature. When observed, which was usually during anatomical dissections, it was described as simply "a chain of glands extending across the pharynx from one Eustachian tube to the other." It did not, however, escape the attention of the celebrated William Hunter, who exhibited in his museum careful dissections of this tissue, both in its normal and pathological condition.*

Horace Green briefly mentions these adenoid growths in his work on "Follicular Disease of the Pharyngo-Laryngeal Membrane;" Czermak speaks of them as "cock's-comb protuberances;" Türck refers to them as "vegetations;" while Semeleder describes two cases of polypi from the roof, which Meyer considers must have belonged to this category.

The first recorded attempt at examination of these growths by means of the rhinoscopic mirror was made by Voltolini in 1865.† He observed comb-like, club-shaped, or berry-shaped formations in this region, which he described as polypoid vegetations of the mucous membrane; and in 1868 a very admirable and elaborate description of the microscopic anatomy of this tissue was given by Prof. Luschka.‡

But little practical attention, however, was directed to the disease of this tissue until Dr. William Meyer, of Copenhagen, gave the results of a careful study of this subject in an elaborate article on "Adenoid Vegetation of the Naso-Pharyngeal Cavity."§ He says: "These vegetations are found to consist of adenoid tissue, and are therefore morbid growths of the closed glandular structure of the pharynx. They vary in form and consistency, sometimes being solid and firm, and at others soft, highly vascular, and prone to bleed."

The diseases most common to the gland-tissue in the vault of the pharynx are those of a chronic inflammatory or catarrhal nature, from exposure to various irritating causes to which it is constantly subjected, leading to hypertrophy and adenomatous growths. In fact, the cause, history, and progress of the affections of this tissue are those of ordinary post-nasal catarrh; and a great number of the cases of so-called chronic post-nasal catarrh, commonly considered incurable, will be found to be due to localized disease of this tissue; and when this tissue is removed, all symptoms of a general catarrh will readily disappear.

These adenomatous neoplasms may be divided, according to the nature or manner of attachment, into sessile and pedunculated. In the early stages of a growth it is often difficult to determine which of the two forms it will assume; but the sessile is by far the more frequent occurrence. These growths vary in size from a small projection to one sufficiently large to completely fill the nasal pharynx, and, as sometimes seen, to project below the palatine border; moreover,

owing to their vascularity, they appear at times much larger than at others. Their frequent association with enlarged granulations in the upper part of the pharynx has led many* to believe in the existence of a connection between the two. Such, anatomically speaking, is not the case. The granulations consist in hypertrophy of the solitary glands; while in the adenoid enlargement, all the elements of the mucous membrane are associated in the hyperplastic action.

The buccal pharynx is composed of connective tissue, while in the nasal pharynx the adenoid tissue largely predominates, and the mucous membrane is much thicker and more vascular.

Etiology.—The causes to which these growths are most frequently attributed, are coryza and exposure to cold and damp. Owing to the readiness of this adenoid tissue to absorb moisture on exposure to humid atmospheres, more or less stasis is produced, exudation takes place from the turgid vessels into the substance of the tissue, and becoming organized, results in a permanent enlargement. Adenoid growths are found most frequently in persons leading an indoor life, owing to the debility of the local parts from lack of air and exercise, and the congestion produced by sudden change from hot rooms to cold or damp air.

The cause for the greater frequency in children lies in the lymphatic temperament, and the anatomico-physiological connection, through the lymph channels, between the naso-pharyngeal region and the cervical lymphatics. The larger size of the channels in children also explains the frequent occurrence of enlarged glands of the neck in those suffering from nasal catarrh. Often an inherited scrofulous taint predisposes to these growths, and they are very frequently associated with cleft palate, owing to the direct exposure of this region to various irritating causes.

The age at which these growths are most frequently found is during childhood and youth, but they are also found in many cases of adults of both sexes; although rarely to the extent of filling the cavity of the nasal pharynx, as frequently found in children. They are not known, however, to occur in advanced life.

Symptoms.—In the course of the growth of these tumors, the first function materially interfered with is the free normal respiration; and as the growth increases so as to fill more and more completely the cavity of the nasal pharynx, all the functions depending on a normal condition of these parts—as the respiration, phonation, smell, and hearing become correspondingly impaired.

In children, the growths are usually much larger than in adults, proportionate to the size of the nasal cavity, consequently with them nasal respiration is more seriously interfered with. In children, the first and most prominent symptom is the constantly open mouth, which occasions later on the drawing down of its corners; the lengthening of the line of the nasal wing; a stretched and wrinkled appearance of the skin of the face; a flattened or compressed appearance of the nose from arrested development, and, together with a frequently sallow complexion, gives to the child a peculiar indolent or vacant expression. Sometimes a drawing down of the inner canthus of the eye, so strongly as to give to the face a strange Chinese appearance, as has been observed by Michel; † "deafness and a peculiar deadness to the articulation of certain consonants, as *m* being pronounced like *b*, and *a*

* Cohen : Diseases of the Throat and Nasal Passages, 1879, p. 263.

† Wiener Medizinische Zeitung, No. 38, 1866.

‡ Der Schlundkopf der Menschen, Tübingen, 1868.

§ Medio-Chirurgical Transactions, Vol. LIII, p. 191, London, 1870.

† I prefer the classification adopted by Loewenberg, i. e., of applying the term nasal pharynx to that portion of the pharynx above the border of the palatine arch, and buccal pharynx to that portion below the palatine arch.—Les Tumeurs adénoïdes du pharynx nasal. Paris, 1876, p. 1 (1).

* Loewenberg, loc. cit., p. 8.

† Diseases of the Nasal Cavity and the Vault of the Pharynx. Cologne, 1876. English translation by Shurley and Yemana, p. 62.

like *d*; a peculiar way of pouting or twisting their lips, toying with them as it were,"* are also striking characteristics.

In adults, these symptoms are not usually so well marked, for it is seldom that the size of the growth is sufficient to completely obstruct nasal respiration. They are very clearly described by Dr. Andrew Clark,† as "discomfort, aching, or pain in the neighborhood of the soft palate and posterior nares; tingling, or sense of fullness about the root of the nose, frontal headache, a mawkish or foetid taste in the back of the mouth, a thick mucus, purulent, or cheesy secretion discharged at intervals, chiefly through the mouth, by means of snorting nasal inspirations, followed by hawking, slight perversion of taste and smell, alterations of voice, sometimes temporary deafness from obstruction of one or both Eustachian tubes, and an abundant secretion of wax in the external ear."

We will now consider the relation of these growths to these important functions. The injurious results to both organs by the substitution of buccal respiration for nasal respiration is at once apparent. During the passage of air through the tortuous nasal passages it is subjected to two important physical changes:

1st. It becomes elevated in temperature.

2d. Laden with moisture by the evaporation going on from the extensive surface.

The effect of buccal respiration on the pharynx is often quite marked. The cold air strikes the pharynx, heat and moisture are abstracted, and the effect is to excite secretion and induce irritation, resulting in granular pharyngitis. In many cases, however, this pharyngitis is produced by other causes, which tend in turn to induce these adenoid growths.

It has been pointed out by Stoerck that the mucous membrane becomes cedematous after obstruction of nasal respiration for a length of time, and the mucous follicles undergo colloid degeneration. The degeneration, however, is the result of the hypertrophy as a primary cause, and frequently results in sufficient infiltration, particularly over the inferior turbinated bones, to require active treatment and often instrumental removal. The same degeneration may extend to the terminal fibres of the olfactory nerve in the pituitary membrane, and thus enfeeble or destroy the sense of smell. Occlusion of the nares will also produce the same result by preventing the inspiration or entrance of the odoriferous particles.

With the enfeebling of the sense of smell comes the impairment of an important element in the sense of taste. The sense of taste proper is only capable of distinguishing the four elementary properties of sapid substances, as sweet, sour, saline, and bitter, while the perception of all the aromatic flavors depends on the sense of smell. The lack of this element in the taste is often observed in those whose smell is destroyed, and the experiment can readily be made by tasting a choice brand of wine with the nostrils closed, when it will seem flat and insipid.

The most important office of the passage of air through the nose before it enters the lungs, is the arresting or filtration, so to speak, of foreign substances, as dust, spores, etc., from the air; the necessity of which is shown by the experiments of Tyndall, Pasteur, and others. Smith and Davis‡ estimate that there are ordinarily contained in the air we breathe during ten hours, 37½ millions of spores. A microscopic examination of the nasal mucus and the air

found in a crowded, illy-ventilated room, will at once convince one of the importance of nasal respiration in protecting the pulmonary organs; and aptly illustrates the old proverb, "Shut your mouth and preserve your life."

The cutting off of nasal respiration exerts a marked influence in arresting the development of children. The first and most serious impediment is its interference in nursing, for as soon as the child closes its mouth on taking the breast it is at once unable to breathe, and has to remove its mouth to take breath. The transitory symptoms of false croup, or laryngitis stridulus, occurring in the early part of the night, to which many children are subject, are often due to this cause. On lying down, while sleeping, the tongue dropping back closes against the soft palate, and, acting as a valve, produces marked stridulous breathing, and should the mouth become closed, suffocation is at once produced, and the child starts up with a cry and spasmodic gasping for breath. In this manner can be explained the restlessness and spasmodic starting in sleep in many children, the cause of which is so often looked for in some nervous derangement. Several cases of this kind have come under my observation, and on the removal of the obstruction the trouble entirely disappeared. I can now recall a very marked case of this kind which occurred several years ago. The patient was seen by several noted physicians, but none succeeded in giving any relief, as all their attention was directed to the nervous system.

The deformity known as *chicken- or pigeon-breast* is often produced by these obstructions, concerning the cause of which the general examination or history will give no clue. In the growth of adenoid tumors there is a transition stage, before the nasal respiration is completely cut off and buccal respiration established, when a deficient amount of air enters the lungs, and by the action of the inspiratory muscles tends to collapse the chest, the pliable ribs giving way to the external pressure. Dupuytren and Roberts attributed this deformity to enlarged tonsils, entirely overlooking the fact that they might be the result of these growths.

Open and clear nasal passages are of the utmost importance in the function of speech, particularly in the pronunciation of the nasal consonants *m* and *n*, which are pronounced *b* and *d* when the posterior nasal opening is occluded. The manner in which this substitution takes place is explained by Loewenberg,* as follows: In the pronunciation of *m*, the air is emitted through the nose, while the buccal cavity is closed in front by the compression of the lips one against the other, the posterior nasal opening and larynx remaining at the same time open. The same configuration of the buccal cavity is necessary for the pronunciation of *b*, except that the soft palate is raised, intercepting the passage through the nose, and the current of air fills the mouth, pressing against the lips, forcibly separating them.

Thus we see that when the posterior nasal passage is closed by the pathological obstruction, the tumor, on attempting to articulate *m*, it becomes impossible. The expired current of air is compelled to escape by the mouth, and *b* is pronounced. The process is exactly the same in the substitution of *d* for *n*, except that the anterior closure of the buccal cavity is made by the tongue, the tip of which is brought in contact with the superior incisors and alveolar process when *n* is pronounced, the current of air being compelled to

* Meyer: *Medico-chirurgical Trans.*, loc. cit.

† London Hosp. Reports, Vol. I.; Spencer Watson, *Diseases of the Nose*, p. 65.

‡ Loewenberg: loc. cit., p. 21.

* Loc. cit., p. 27.

pass through the open posterior nasal passage; while in the pronunciation of *d*, the tongue is forcibly separated from the teeth and alveolar process. Thus the labial and lingual resonants, *m* and *n*, are replaced by the labial and lingual explosives, *b* and *d*, so that moon is pronounced *bood*; common, *cobbed*; and nose, *loas* or *dose*. The peculiar nasal twang is also so characteristic as to be readily distinguished when heard.

The influence on the voice in singing is often marked. It muffles the voice and interferes with the emission of high notes by preventing the elevation of the soft palate. Cases are recorded when, after an operation, the voice rose a tone and a half.

Effect on the ear.—Pharyngeal adenoid tumors are nearly always associated with chronic inflammation—as pharyngitis, rhinitis, sometimes hypertrophy of tonsils, and, most frequently of all, with Eustachian catarrh. Meyer found, in 175 cases which came under his observation, that in 180 there were auricular complications.

The ear may be affected by the tumor in three ways:

1st. By the propagation of acute or chronic inflammation through the Eustachian tube to the middle ear.

2d. By the pressing of the tumor against the orifice of the tube, mechanically closing it, and by thus preventing the entrance of air, the membrana tympani becomes collapsed, and in cases of Eustachian catarrh prevents escape of the mucus secreted, causing supuration and perforation of the drum-head.

3d. By mechanically exhausting the middle ear of air during deglutition, in cases where there is complete obstruction of the nasal openings.

The influence of nasal respiration on the ear is illustrated by Mr. George Catlin, in his history of "The North American Indians." Among two millions Indians, he found not one who was deaf or breathed through the mouth, except three or four deaf-mutes; and in the memory of the chiefs of 150 tribes, not one case of deafness could be remembered to have occurred. This is explained by the mother always closing the mouth of the child whenever it attempted to breathe through it.

Diagnosis.—The diagnosis of these growths is ordinarily quite easy. In many cases the symptoms are sufficient to afford very conclusive evidence of their existence, but it is only by a rhinoscopic or digital examination that a positive diagnosis can be made. Michel* states that he is ordinarily able to recognize them through the nostrils; but it has not been my good fortune to be able to do so only in very exceptional instances. Whether Michel's success was due to the large-sized nasal openings in the people of Cologne I cannot say.

In the normal vault the only projection to be seen by the rhinoscopic mirror is the pharyngeal orifice of the Eustachian tube, consequently any considerable elevation above the normally smooth walls is at once to be considered an abnormal growth. By means of the rhinoscopic mirror we are able to determine their exact location, size, color, nature of secretion, if multiple or single, pedunculated or sessile. When sessile they usually form one rounded mass, with numerous small openings, which lead to a general cavity with communicating recesses.† From each opening will be seen exuding a thick viscid mucus, ordinarily quite clear, but sometimes discolored and mixed with

pus or blood. Often this material will dry on the surface, forming a sort of cap, which, when removed, will represent the outline or configuration of the surface of the tumor. When pedunculated they are usually multiple, and hang down from the vault in clusters, or berry-shaped excrescences. They are usually of a bright red color, but sometimes have the appearance of an hypertrophied tonsil. Their presence will sometimes be indicated by their interfering with the introduction of the Eustachian catheter.

In many cases a digital examination, as proposed by Meyer, is necessary to determine the consistency, if firm or flaccid, the exact attachment, and to distinguish in doubtful cases if the enlargement is a fleshy growth or an osseous projection or tumor. After a digital examination there is usually more or less bleeding, and so great is their vascularity that, as observed by Dr. Cohen,* slight hemorrhage is often produced by the projection of a jet of water against them from the posterior nasal syringe. Meyer likens the sensation perceived by the finger to a bunch of earth-worms. A like sensation is, however, often produced by the constriction upon the finger of the muscles of these parts.

In early childhood the symptoms which these growths produce may be mistaken for those produced by coryza and hypertrophy of the tonsils, and in adults with chronic naso-pharyngeal catarrh, hypertrophy of the tonsils, and nasal and naso-pharyngeal polypi. In each of these cases a careful examination will reveal the exact nature of the difficulty.

The *prognosis* is always favorable as far as removal is concerned, and the affections which they have produced in other organs are usually much more amenable to treatment than when produced by other causes.

Treatment.—The treatment of these growths is divided into local and general. The association of these growths with the lymphatic temperament is so frequent that more or less general treatment is usually called for. It should consist in good hygiene, plenty of exercise in the open air, cold sponge or sea baths, and cod-liver oil, bitters, iron, and iodine preparations if required. All irritants, as too hot or cold food, alcoholic liquors, tobacco, bad air, and excessive use of the voice, should be avoided. In cases where there is no diathesis to combat, only the injuries done by the presence of the tumor have to be counteracted.

The *local* means employed are ablation and cauterization. The method usually employed for ablation is by crushing, by means of forceps with strong blades curved at a proper angle to pass up behind the palate; the curette, as used by Loewenberg, consisting of a spoon-shaped blade with cutting-edge, and attached to a handle by means of a slender shank; the *écraseur*, as recommended by Maisonneuve and Wilde; and the cutting forceps, as devised and used by Fauvel, Stoerck, and Cohen. These cutting-forceps are often very convenient as an expeditious means of removing small growths. There is but little danger of injury resulting from their use, as whatever adventitious tissue is found in the vault is legitimate prey. Meyer has recommended an annular knife to be passed through the nostril, by which he scrapes off the tumors. This, however, is only applicable in cases of large vegetations.

Since the introduction of the galvano-cautery into the treatment of these growths by Voltolini in 1867, it has been fast superseding all forms of caustic applications and operative procedures. Its advantages over all other methods are very great, due to the

* Loc. cit., p. 58.

† Clark, London Hosp. Rev., Vol. I.

* Loc. cit., p. 269.

rapidity and effectiveness of its action, and the avoidance thereby of hemorrhage, which in the cutting operations is frequently very profuse and exceedingly troublesome, owing to the great vascularity of the parts.

The cautery can be used in two ways, according to the variety of the growths. For those which are pedunculated, the platinum wire loop passed through the nostril and around the tumor is best adapted; and for the sessile variety, the curved electrode devised by Lincoln,* which is passed up behind the palate, in the end of which is a coil or disc of platinum protected from injuring the surrounding parts by a shield, and is made to fit Lieter's handle. I have recently had an electrode made with the stem coated with asbestos, which protects the parts entirely in case the stem becomes heated.

In some cases a simple hook for holding the palate is all that is required; but in cases of muscular and rigid palates, where gagging is easily induced, the most reliable retractor I have found to be two soft tapes passed through the nostrils and out of the mouth and tied over the upper lip in front, as suggested by Dr. Cohen; or a rubber cord used in a similar manner, as proposed by Dr. Wales. By thus drawing the soft palate forcibly forward the shield can to advantage be dispensed with, and by means of the rhinoscopic mirror the entire operation can be performed under sight; and it can readily be seen when the entire destruction of the growth is accomplished. Ordinarily, the use of anesthetics is unnecessary, as the pain attending the operation is not great; but in some cases of nervous patients, or very irritable throats, they are advisable and occasionally indispensable. The battery which I use is Dawson's, manufactured by Geo. Tiemann & Co., which, with Lieter's handle, leaves but little to be desired for a perfect cautery apparatus.

To illustrate the preceding remarks, I will select a few cases from my note-book as we meet them in practice.

CASE I.—Miss H. D.—, *et.* 22 years. Referred to me Feb. 16, 1875; suffering from trouble in her throat, and deafness. She complained of stoppage of the nares, with a sensation of fulness in the back part of the nares just above the soft palate, and of a thick mucous discharge from posterior nares. Her voice had a muffled and indistinct expression. She also complained of an itching sensation in external auditory meatus, and there was an abundant secretion of wax in the ears. On rhinoscopic examination I found a large growth of adenoid tissue almost filling the vault, pressing on the pharyngeal opening of the Eustachian tube, and hanging down behind the velum, which had quite a polypoid appearance. Not having a galvano-cautery at hand at the time, I removed it with a pair of sharp-edged scoop-forceps, such as are used by Meyer. Considerable bleeding occurred at the removal, but it was readily controlled by perchloride of iron. She continued under treatment for a short time for the deafness, and also some naso-pharyngeal catarrh with which the growth was associated. The latter trouble was removed by local treatment, the closed Eustachian tubes were opened by the introduction of the Eustachian catheter, and her hearing was left but slightly impaired.

June 3, 1877.—She returned with a reappearance of the adenoid growth to nearly its former size, and an increase in her deafness. I then applied the galvano-cautery. One application was sufficient to destroy the growth entirely; and since her voice has

been good, hearing greatly improved, and there has been no tendency to a return of the growth.

CASE II.—Miss S. J.—, *et.* 21 years. Had suffered from more or less throat trouble for the previous seven years. Had also had a great deal of cough and expectoration which proceeded from a bronchial catarrh in right lung. The trouble in throat consisted in an irritation and tickling, with stoppage and sensation of fulness in posterior nares, just above the soft palate. There was also considerable tenacious discharge from posterior nares, obliging her to hawk and cough in order to keep her throat clear. She had also considerable frontal headache. On rhinoscopic examination there was seen a mass of adenoid tissue obstructing the passage; the growths being thrown into folds, giving it a cock's-comb appearance. A profuse tenacious discharge was poured from the openings of the lacunæ of the glands, which were very sensitive and bled on the slightest touch. Her singing-voice, which was before very clear and strong, had become flat and the compass restricted. Removal of this diseased tissue by the galvano-cautery was advised and readily assented to. The first application of the cautery did not result in the complete removal; accordingly, after an interval of about ten days, it was repeated with entire success. Local applications were made to the surrounding congestion, and the slight thickening which the tumors had caused; inhalations and appropriate internal remedies for the bronchial catarrh were given; and she is now enjoying excellent health.

CASE III.—Miss E. W.—, *et.* 28 years. She was slender, delicate, and of a scrofulous diathesis, although quite well until the previous September. Came under my care Dec. 15, 1876. She had been greatly annoyed for about three months by a very profuse discharge of a thick tenacious mucus from the posterior nares, which she was unable to expectorate or clear from her throat. The only manner by which she could dispose of it was by swallowing, which would bring on attacks of sick-headache and nausea every few days. The discharge was aggravated by damp weather or colds, increasing accordingly the frequency of the attacks of nausea, which were very exhausting. She lost flesh and strength quite rapidly. Had a constant dull frontal headache, also an irritation in throat which excited cough, some obstruction to nasal respiration, and difficulty in her enunciation. On rhinoscopic examination, the vault was found filled with hypertrophied glandular tissue, from which the mucus was exuding. Digital examination gave to the finger the peculiar sensation of a bunch of earth-worms, as described by Meyer. The posterior nares were cleansed thoroughly every day by means of the post-nasal syringe, with a solution of chlorate of potash, chloride of sodium, and carbolic acid. This relieved the vomiting and sick-headache. Tonics and good nutriment were given, and as soon as she was restored to sufficient strength the galvano-cautery was applied to the diseased tissue in the vault. Two applications were required before it was entirely removed. After the disappearance of the tissue and the cessation of the discharge, the nausea and sick-headache left, her appetite returned, and it was surprising to note the rapidity with which she regained her flesh and strength.

CASE IV.—The most interesting and characteristic case of this affection came under my care last October. Miss Z. M.—, aged thirteen years, a bright, well-developed, and well-nourished girl; scrofula and phthisis markedly hereditary from both parents. One year ago last February she had scarlet fever, but it was followed by no observable sequelæ at the time.

* MEDICAL RECORD, New York, Dec. 30, 1876, p. 840.

Last February, one year after, she began to have trouble in her throat and posterior nares, accompanied by deafness. She had also a discharge of clear but thick viscid mucus from posterior nares, and an irritation in throat producing cough. Since the trouble came on she has had a growing impediment in her speech, giving her voice a muffled, flat sound, depending on deficient enunciation of the nasal consonants. She snored, and frequently started up suddenly while sleeping. She breathed chiefly through the mouth, because of stoppage in the nose, which, with her deficient hearing, gave her a very vacant, staring expression. Her friends had become quite anxious concerning her hearing, and had had her under the care of two aurists of distinction, during the past year, without benefit resulting. On examination, marked hypertrophy of the adenoid tissue was found nearly closing the post-nasal openings, extending into the fossæ of Rosenmüller, and encroaching on the pharyngeal opening of the Eustachian tubes, occluding them, and thereby causing deafness. The membranæ tympani were markedly concave, but otherwise normal. The opening of the Eustachian tubes by the catheter partially restored the hearing, but only for a short time. Removal of this tissue was advised as the only means of permanent benefit, and the use of the galvano-cautery recommended and readily assented to. The operation was performed with the use of an anæsthetic, Dec. 12th, my friend, Dr. E. V. Stoddard, assisting. The result was very gratifying. Her hearing was quite nearly restored, the hacking cough passed away, and the impediment in her speech also disappeared.

In many cases it is very difficult, often impossible, to obtain the assent of the patient, or parents in case of children, to any method of operative interference; consequently, in such instances, the removal of the tissue must be effected by a chemical means. Various caustic applications are used and recommended for such purposes; as, the Vienna paste, London paste, nitric acid, chromic acid, nitrate of silver, nitrate of zinc, etc. The one best adapted for these applications I have found to be chromic acid, on account of its rapid action and the peculiar advantage which it possesses over the others of causing but a very slight amount of pain proportionate to the destructiveness of tissue.

From a number of cases, I will cite the following as a typical one in which it was used. Frank F., an active, bright boy of thirteen years; home, San Francisco, Cal.; attending school in Oswego. He had been troubled with catarrh for several years, but otherwise enjoyed ordinarily good health. After an attack of measles three years before, his catarrhal trouble became much worse and his health impaired. He had a profuse mucous discharge from the posterior nares, proving a great annoyance to himself and friends, particularly at meals. There was great obstruction to nasal respiration, which on taking cold would be entirely cut off. The nasal resonance was gone from the voice, or, in common parlance, he spoke through his nose. During the night he snored loudly. Examination revealed a mass of hypertrophied adenoid tissue in the vault of the pharynx, about the size of a sparrow's egg, nearly filling the superior pharyngeal space, and from the openings in this tissue were poured out profusely a glairy mucous discharge. There was also moderate enlargement of the tonsils, but no other disease in or about the throat or nares to be found. I advised excision of the tonsils, and removal of the adenoid growth by the galvano-cautery, as the most expeditious means of accom-

plishing the desired end. The excision of the tonsils was allowed, but the removal of the adenoid growth by means of the galvano-cautery was objected to. Consequently I had to resort to the application of a caustic, and accordingly used chromic acid. About fifteen applications were required before the complete reduction could be accomplished, owing to the size and firmness of the growth. It was interesting, in this case, to note the cessation of the discharge with the disappearance of the tumor, and also the corresponding improvement in general health. Before this the boy had been subject to frequent colds, but has been entirely free from them since.

Thus it is a common experience to find more or less disease of this adenoid tissue in nearly every case of obstinate or aggravated post-nasal catarrh which one is called upon to treat, varying in degree from a mild catarrhal inflammation confined to the mucous membrane lining the crypts, and permeating all the channels, as we find in tonsillar catarrh, to extensive disease and hypertrophy of this tissue, blocking up the pharyngeal vault, and producing all the symptoms depicted in the most aggravated cases. And it is in these cases as useless to attempt, by ordinary mild astrigent or saline washes, or sprays, to remove the disease thus located almost wholly below the surface, as it is to attempt to remove catarrh or hypertrophy of the tonsils by such means.

Excision or destruction of the diseased tissue is the only means of a radical, permanent, and positive cure.

EFFECTS OF "PITHING" ON THE VASCULAR SYSTEM.

A NEW PHASE OF THE SUBJECT.

By THOMAS W. POOLE, M.D.,

ONTARIO, CANADA,

[AUTHOR OF "PHYSIOLOGICAL THERAPEUTICS."

By "pithing" is meant the destruction of the medulla oblongata and spinal cord. The operation is performed by cutting down posteriorly upon the cervical spine, just below the skull, separating two of the vertebrae, and thrusting a probe or stout wire first into the cranium and then down the spinal canal, where it is moved about freely, so as to break up and destroy the nervous substance.

It has been asserted on authority, and currently believed, that this operation causes general relaxation or dilatation of the arteries, and as the calibre of these tubes is under the control of the vaso-motor nerves, whose centres are thus destroyed, the experiment is quoted to prove that arterial dilatation is the effect of vaso-motor paralysis. As a consequence, it is also held that arterial contraction is depending on vaso-motor influence, and is best shown under vaso-motor excitation.

We have had the boldness to call in question the truth of the accepted vaso-motor theory, and in a recently published work, entitled "Physiological Therapeutics," we have attempted to show that this theory is quite at variance with the facts of disease and drug action. At present we propose to refer more especially to the effects of pithing, and before proceeding to the results of our personal observation, we shall refer, in brief terms, to Dr. Burdon-Sanderson's account of the operation, to which the reader may be disposed to turn for the full details, as contained in the "Handbook for the Physiological Laboratory." (Lindsay & Blakiston, Phila., 1878, pp.

244-246.) This eminent physiologist states that the arterial tonus is maintained "only so long as the artery is in communication with the vaso-motor centre," and that "if the medulla is divided immediately below the cerebellum, all the arteries are relaxed." To illustrate this, he enters into details of the "destruction of the nervous centres" by the manner known as pithing. A careful and studied perusal of what follows under this heading has satisfied us, and we think will also convince the candid reader of the work referred to, that the result of the operation, as there recorded, by no means sustains the assertion that the arteries are relaxed, and entirely fails to prove the point it is intended to demonstrate. Thus, Dr. Burdon-Sanderson finds the heart of the pithed frog empty, and that it bleeds considerably less when the ventricle is split open than the heart of an unpithed frog. The intestinal veins are distended. He finds the mass of the blood at rest "out of reach of the influence of the heart," presumably in the veins, which he tells us elsewhere are one-sixth more capacious than the arteries; but he makes no mention whatever of the condition of the arteries, the point on which the interest of the experiment entirely depends! This omission is very significant. If the arteries were relaxed and full of blood (as the experiment was specially designed to show), the left ventricle and aorta could hardly be empty; nor with the systemic vessels distended with blood could that fluid be properly said to be at rest "out of the reach of the heart."

With a view of ascertaining for ourselves what were really the effects of the destruction of the nervous centres on the vascular system, we have conducted a series of operations of the kind referred to on frogs, rats, kittens, and puppies, with the result that, so far from the arteries being relaxed or dilated with blood, we invariably found them empty, pale, and contracted, while, in marked contrast, we as uniformly found the entire venous system distended and its swollen tubes dark blue from the quantity of blood contained in them. We found this fact less palpably shown in frogs, owing to the early bifurcation of the aorta and its subsequent division into small branches. But in the mammalian subjects mentioned, the emptiness of the aorta and its chief branches, the smallness and paleness of the iliac artery contrasted with the corresponding dark and swollen vein, the prominence of the veins of the mesentery and viscera, so injected as to be easily traceable to their venous trunks, and the engorged portal vein, were too well marked to admit of doubt. The lungs were not congested, but were partially collapsed, as though the pulmonary artery, too, had contracted, shutting off the passage of blood; for the venæ cavae were full, and the right ventricle bled on puncture rather more than its tiny cavity (in some of these subjects) might be expected to hold. We are satisfied from these observations that destruction of the nervous centres by pithing is not attended by dilatation of the arteries, but that, on the contrary, the arteries are so contracted as to have emptied themselves by forcing the blood into the veins, which were distended and prominent in consequence. We can now fully understand Dr. Burdon-Sanderson's statement as to the mass of the blood having come to rest "out of the reach of the influence of the heart."

These results show that this operation, so far from supporting the accepted vaso-motor theory, militates strongly against it; for the arteries are contracted, when, under the condition of nerve paralysis, they ought to be dilated. Nor can the distended condition of the veins be quoted in support of that theory, for it

is the arteries and not the veins which are under the control of vaso-motor nerve influence. The dilated condition of the veins is a purely passive or mechanical one, from having blood forced into them which was debarred from passing the round of the circulation as usual. For the reasons stated, we believe this obstruction was caused by the contraction of the pulmonary (in common with other) arteries.

Anatomists long ago pointed out, that in death from ordinary causes the arteries were invariably found empty. Hence the ancient notion that they were filled with air or "vital spirits." What we here state to be the effect of pithing is therefore an ordinary and by no means exceptional condition. This uniform contraction of the arteries in death proves that arterial contraction cannot be dependent upon vaso-motor nerve influence, since it occurs after nerve-force becomes extinct. It follows equally that arterial dilatation cannot be due to nervous paralysis, for under this very condition of the nerves the arteries are contracted and empty.

In this connection we are sure to be referred to the celebrated experiment on the cervical sympathetic, in which section of that nerve or ganglion has been shown to produce dilatation of the arterioles of the head and face, with other concomitants of that condition, including increased temperature; and it will be said that here, at any rate, nervous paralysis and vascular dilatation go together. We have fully considered this objection in the work referred to, and have shown that physiologists very frequently regard injury, section, or extirpation of portions of nervous tissue, not as producing paralysis, but as setting up temporary irritation in the remaining nervous substance, or in contiguous nervous tissues, and in this way producing for a time effects similar to those of nervous excitation. In addition to the authorities there quoted in support of this view, we are glad to be able to add that of Dr. Ferrier, who, in his "Functions of the Brain," records marked sexual excitement in a monkey, in whom the occipital lobes had been extirpated before it had recovered its appetite for food, and while still much physically prostrated. Dr. Ferrier remarks: "The excitation of the [sexual] appetite cannot have arisen *ab extra* in the usual manner, for the companion monkey was also a male, and resented the proffered embrace. It would therefore seem to have been caused by central irritation, and the conditions were such as to excite by inflammatory irritation the centres of the sexual feeling, supposing these to be in immediate contiguity to the line of section of the occipital lobes" (p. 198). Dr. Burdon-Sanderson finds the vagus ganglion of the septum of the frog's heart excited to increased display of its motor power by "the mechanical irritation" occasioned by excision of the sinus venosus (inferior vena cava) from the right auricle, "preferably by a blunt scissors." (Handbook, etc., pp. 277, 278). In view of these authoritative examples, in addition to those elsewhere adduced, proving that physiologists are accustomed to regard traumatic injury of nervous tissue as a source of nervous excitation, we ask for the application of the same principle to section of the sympathetic. In that case, the dilatation of the cranial arteries will be regarded as the effect of excitation of the vaso-motor fibres of the sympathetic, produced by the operation. Many reasons might be shown to justify the opinion that the real function of the vaso-motor nerves is to dilate the arteries and not to contract them. Indeed, it is only on this view of the case that the relations of the vaso-motor nerves to the arteries admit of explanation at all. Take a familiar

example. A little brandy is an undoubted stimulant. It produces flushing of the face, and other signs of arterial dilatation. If the accepted vaso-motor theory were true, there ought, on the contrary, to be arterial contraction, paleness, etc., for on that theory excitation of the vaso-motor nerves by a stimulus causes the arteries to contract, and arterial dilatation is the result of nervous paralysis. To account for the phenomena of this simple case, then, it is necessary to assume that the glass of brandy has paralyzed the vaso-motor nerves, which is manifestly absurd. On the other hand, if we regard the stimulant as temporarily increasing the *dilating* power of the vaso-motor nerves, and these in turn expanding the calibre of the arteries, permitting an in-rush of blood (as also occurs in blushing), the facts and the theory are in accord, and the explanation natural and consistent. Similar examples might be multiplied indefinitely; and indeed, wherever the accepted vaso-motor theory is thus tested in the phenomena of disease and drug action, it will be found inconsistent with the facts.

It can also be shown that excitation of the cranial vaso-motor nerves, as a result of section of the cervical sympathetic, is not inconsistent with the supplementary part of that experiment in which Dr. Brown-Séquard has shown that faradization of the cranial end of the cut sympathetic reduces the dilated arteries to their normal calibre, and thus negatives the effects produced by the irritation of the section. For it is well known and generally admitted, that the electric current relieves pain and produces anæsthesia, at least for a time in nerve-trunks. Anæsthesia is only another name for paralysis, and anæsthetics are paralyzing agents (Dr. Austie). What more natural, then, than that the electric current, by paralyzing the cranial sympathetic, and thus snuffing out, as it were, the excitation of those nerves induced by their section, should put an end to the *dilating* power of the vaso-motor nerves, and with this restore the normal calibre of the vessels? For further proof of the paralyzing effect of electricity on nerve tissue, see Matteucci's experiment on the spinal cord of the living rabbit, which, during the passage of the current, may be cut, pricked, burned, etc., without eliciting from the animal any sign of pain. We cannot dwell on this part of the subject here, but it is fully discussed in our "Physiological Therapeutics."

We have seen, conclusively, as a result of the destruction of the nervous centres by pithing, that contraction of the muscular coats of the arteries, with reduction of their calibre, takes place independently of nervous influence, of which the fact that the arteries are found contracted* and empty in death from general causes, is a further proof. If, then, as we contend, the influence of the vaso-motor nerves is to *dilate* the arteries (an influence arrested by paralysis or death), the question arises, To what source are we to look for the contractile power of the arteries? The teachings of physiologists themselves supply the answer: to the inherent contractile power of the muscular tissue of which these tubes are in part composed, and with which all physiologists declare this tissue to be richly endowed. We have quoted these authorities at length, on this part of the subject, in the work referred to. It is true they do not assert or admit the independence of muscular contractile power, apart from nerve influence, but they sometimes come so near asserting it that one can hardly help imagining that they refrained from asserting it more through

deference to established opinion than from a positive conviction that the assertion was unjustified. Thus Prof. Kuss, of Strasbourg, in his *Lectures on Physiology* (Duval, Amory), states that "muscular contractility is a purely physical property of elasticity: the rigidity of the corpse is a phenomenon of the same order as muscular contraction in the living body" (p. 88). Dr. Carpenter says of certain post-mortem muscular contractions, that they are "due to the inherent contractility of muscles, and not in any degree dependent upon the operation of the nervous system" (*Physiology*, before quoted, pp. 827, 828). This eminent physiologist combats the teachings of some physiologists, "that muscles, though not depending on nerves for their peculiar vital power [of contractility], are yet dependent upon them for the exercise of it" (p. 825). If the "hypothesis" here repudiated by Dr. Carpenter be untrue, then the opposite of that proposition must be true, namely, that muscles are neither dependent upon nerves for their contractile power, nor for the means of exercising it, which is all for which we contend. Drs. Todd and Bowman, in their *Physiological Anatomy*, "protest against the doctrine which assigns the spinal cord as the source of muscular irritability. . . . It is contrary to all analogy to assign to one tissue the power of conferring vital properties on another. . . . And surely it is too much to suppose that a tissue-like muscle, so complex in its chemical composition, and so exquisitely organized for the development of its proper force, should be dependent on the nervous system, or a portion of it, for its contractile power" (pp. 802, 808). It will be seen, from these quotations, how very little we claim beyond what is fully admitted, when we ask for the recognition of the independent, as well as inherent, contractile power of muscular tissue in the arterial walls.

The points we have endeavored to establish in this paper may be summarized as follows:

1. Destruction of the nervous centres is attended, not by relaxation of the arteries, as has been asserted, but by a marked and uniform contraction and emptiness of these tubes.
2. Arterial contraction cannot be dependent on nervous agency, nor can arterial dilatation be the effect of vaso-motor paralysis.
3. The vaso-motor theory at present in vogue is erroneous, untenable, and at variance with the facts it is intended to explain.
4. There are strong and valid reasons for believing that the real function of the vaso-motor nerves is (not to contract) but to dilate the arteries.
5. Similarly strong and valid reasons exist for the opinion that the varying calibre of the arteries is due to the antagonism between the dilating influence of the vascular nerves, and the inherent contractile power of the muscular fibres of these tubes; contraction or dilatation resulting in proportion as one or other of these opposing forces predominates.

The practical importance of these views will be apparent in their application to the phenomena of disease and the action of that large and constantly increasing class of drugs known to act on the circulation through the agency of the nervous system. We cannot even glance at these interesting results here, but have done so elsewhere, in the publication mentioned, to which we invite the reader's candid attention. We claim that the theory, here inadequately presented, serves to explain in a natural and consistent manner many phenomena of disease and drug action at present involved in obscurity or perplexing contradictions.

* Dr. W. E. Carpenter, *Human Physiol.*, 5th Amer. Ed., p. 834, etc.

JABORANDI AND ITS ALKALOID IN CHOLERA.

By D. B. SIMMONS, M.D.,

YOKOHAMA,

SURGEON TO THE KEER GENERAL HOSPITAL, AND PHYSICIAN TO THE CHOLERA PAVILION HOSPITAL.

At the commencement of the present epidemic of cholera in Japan I determined to give, in its treatment, the still fashionable medicine jaborandi and its alkaloid a fair trial.

Though my observations are far from complete, or in all respects perfectly conclusive, I have seen enough to convince me that we have in this drug a remedy of undoubted value in the treatment of this disease.

Thus, I find that, in the usual complete or partial suppression of urine so common in such cases, the specific effect of the medicine shows itself with almost equal frequency in exciting activity of the kidneys as of the skin and salivary glands, its administration being followed in some cases by a copious secretion of urine, with great relief to all the symptoms. When the fortunate result is not obtained in so marked a manner, the tendency to the development of uræmic symptoms is apparently less common.

When too great prostration does not exist, the copious perspiration which follows its use is attended, after the first few minutes, with a decided improvement in the character of the pulse; the sense of oppression is relieved, and a reaction often ensues which is far more natural than when produced by alcoholic or other stimulants, and with apparently less tendency to secondary fever.

A curious fact is often observed, that even when there is considerable vomiting, a drachm of the fluid ext. of jaborandi, at best a nauseous dose, is retained till its specific effect is produced. In one case in which there was almost constant vomiting, this symptom nearly ceased on my administering $\frac{1}{2}$ grain of pilocarpin hypodermically. I find, however, that this remedy has little effect in the more desperate cases, attended by perfect collapse. In fact, I am by no means sure that it does not tend to hasten the already rapidly approaching fatal termination.

PROTOCOINE IN THE DIARRHŒA OF CHOLERA.

This drug has disappointed my expectations somewhat as a remedy for the diarrhœa in this disease. In two cases only where the characteristic rice-water discharges were terribly profuse, two three-grain doses of this drug, administered in quick succession, was followed by their almost immediate and complete arrest.

In those cases, however, in which the discharges are small, with more or less mucus, I have been able to obtain very indifferent results with protochine.

TREATMENT OF DIPHTHERIA IN THE GRAND DUCAL FAMILY.—The cases were treated by Oertel, and his measures were those which he has used for twelve years. They consisted of isolation, inhalation of a disinfectant spray every hour and a half, for fifteen minutes, and inhalation of hot steam (112° to 122° F.); 2.5 per cent. solutions of potass. chlorate, and 0.1 per cent. solutions of acid salicylic were employed. Lime-water and chlorine-water were also used. Internally, large doses of quinine or salicylic acid were given; also alcohol, iron, and other drugs p. r. n.; yet the cases all got well.

Progress of Medical Science.

PERMANGANATE OF POTASSA IN THE TREATMENT OF CHRONIC OTORRHOEA.—Dr. Howe claims to have had excellent results in chronic otitis media purulenta from the use of permanganate of potassa. The solution varied in strength with the severity of the case, two grains to the ounce being used in the milder cases, increased to four, six, or even eight grains to the ounce in the more severe. After thorough syringing with tepid water, a few drops of the permanganate solution were poured into the ear, and allowed to remain five or ten minutes, if it produced no smarting or burning sensation. If decided inconvenience followed, however, it was washed out sooner. When the discharge was at all abundant this was repeated twice daily, and if very profuse, the ear was kept clean by more frequent washings with water alone. Of the 58 cases treated in this manner, 40 have entirely recovered in an average time of thirty-eight days; in 6 the discharge recurs at intervals; in 4 it is continual, but lessened as to quantity and the fetid character of the odor; in 8 it still persists. These results are rather better than follow the use of most of the remedies recommended in this disease. Dr. Howe thinks that in this disease permanganate of potassa can be relied upon to heal safely, quickly, and easily.—*The Buffalo Medical and Surgical Journal*, August, 1879.

ECZEMA OF THE PALM.—The opinion advanced by Dr. Spender, of Bath, that all so-called cases of psoriasis palmaris are either modified forms of eczema rimosum or dermatosyphillis, has given rise to some discussion in the British journals. Dr. Liveing fully agrees with this opinion, thinking that simple psoriasis so rarely attacks the palm or sole, that practically we may say those parts are exempt from it. Dr. McCall Anderson, while acknowledging that eczema of the palms often assumes an appearance resembling psoriasis, is unwilling to admit that these cases are all forms of eczema. Eruptions limited to these parts may be, in his opinion, eczema (especially eczema rimosum), syphilis, or psoriasis; the first being more frequent than the second, and the last the rarest of the three. Dr. Anderson thinks that the recovery of certain cases under treatment adapted to psoriasis and unsuitable to eczema, is strong proof of the existence of the former disease. Both he and Dr. Liveing call attention to the possible influence of the gouty and rheumatic diatheses over these palmar affections. The acute or subacute form, Dr. Liveing thinks, is best treated by the application of water-dressing, lead lotions, or linimentum calcis, according to circumstances; the gist of the treatment being never to allow the dressing to get dry. Pretty free purging is generally indicated. The ordinary chronic forms are well treated by the application of lead-ointment; but in all cases the hand should be rested, covered, washed little, and the ointment constantly applied. In those obstinate cases in which the skin is extremely hard, brittle, thick, and cracked, ointments produce no effect, and other means must be adopted to get rid of the outer cuticle, which entirely prevents any chance of cure. This is best done by the constant application, night and day, of a lotion of liquor potassæ (from two to four drachms of liq. potass. to eight ounces of water is usually strong enough). The hand must be enveloped in rags kept constantly wet with the lotion, and covered with thin gutta-percha, or something of the kind. This treatment must be continued until the

cuticle is thoroughly white and macerated, when it will peel and rub off readily. The process may require to be repeated until the epidermis is reduced to its natural thickness and is thoroughly soft; the skin may then be treated with ointments and glycerine in the usual way. Chronic eczema rimosum of the hand is one of the few forms of eczema in adults that is often benefited by the internal use of arsenic.—*The British Medical Journal*, July 5, 1879.

FOREIGN BODIES IN THE BRAIN.—Dr. Wharton has collected three hundred and sixteen cases in which foreign bodies were lodged in the brain, a large proportion of them being gleaned from the "Surgical History of the Rebellion." Of this number, one hundred and sixty recovered, while one hundred and fifty-six died. In one hundred and six the foreign body was removed, death following in thirty-four, recovery in seventy-two cases. No attempt was made to remove the foreign body in two hundred and ten cases, death resulting in one hundred and twenty-two, recovery in eighty-eight. Ten patients are classed as having recovered, who became sufficiently well to attend to their regular occupations, but subsequently died, at periods varying from three years to fifteen years, from the effects of their injuries. Further examination shows that of the one hundred and sixty recoveries forty-nine were not complete, the patients afterward suffering from epilepsy, vertigo, impairment of mind, incapacity for physical exertion, paralysis, loss of sight and hearing; in one hundred and eleven none of these symptoms were noted. Of these one hundred and eleven perfect recoveries, the foreign body had been removed in fifty-six, and allowed to remain in forty-five. From these figures it is seen that after removal of the foreign body recovery followed in 68 per cent. of the cases, whereas when this operation was not performed 61 per cent. of the cases died. Moreover, of the recoveries following removal, 78 per cent. were perfect, while but 51 per cent. of the recoveries with the foreign bodies *in situ* were free from grave symptoms.—*Philadelphia Medical Times*, July 19, 1879.

TYROSINE EXCRETED BY THE STOMACH IN A CASE OF CANCER OF THE UTERUS.—In a case of cancer of the uterus, the small amount of urea (6 to 7 grammes) excreted by the kidneys induced M. Bruneau to search for it in the saliva and in the vomited matter. The results were negative, but microscopical examination of the vomit showed crystals of tyrosine in the form of long, brilliant needles gathered together in masses. On evaporating some of the liquid with nitric acid, yellowish crystals of the nitrate of nitro-tyrosine were formed, which took a brownish red color on the addition of ammonia. As the presence of tyrosine is always accompanied by a diminished production of urea, it accounts for the small quantity of the urea in this case.—*Journal de Médecine*, May, 1879.

ESERINE AND PILOCARPINE IN EPISCLERITIS.—Prof. Seeley reports two cases of episcleritis that were treated by instillations of eserine. Recovery in both cases was very rapid, ensuing in one case in two weeks, and in the other in ten days. Dr. Wecker, of Paris, says that the treatment that has given him the best results in episcleritis consists in the hypodermic use of pilocarpine (five drops of a solution of twenty centigrammes to two grammes). He makes the injection in the morning while the patient is still in bed. He says this treatment sensibly abbreviates the slow course of the disease, some patients being entirely cured by eight or ten injections. Along with

the injections, he always prescribes the iodide of potassium, and for debilitated subjects preparations of iron.—*Cincinnati Lancet and Clinic*, July 19th.

THE STIGMATA OF MAIZE AND THE ARENARIA RUBRA IN DISEASES OF THE BLADDER.—As the stigmata of maize are a very recent and as yet but little known addition to the materia medica, the following résumé of the conclusions reached by Dr. Dufau, both from personal observation and from the reports of others, will undoubtedly prove interesting:

1. The stigmata of maize have a very marked, though not always a favorable action in all affections of the bladder, whether acute or chronic.

2. In acute traumatic cystitis, and also in gonorrhœal cystitis, they have a very marked diuretic action, but at the same time increase the pain; hence they should not be employed in these cases.

3. The best results have been obtained in cases of uric or phosphatic gravel, of chronic cystitis, whether simple or consecutive to gravel, and of mucous or muco-purulent catarrh. All the symptoms of the disease, the vesical pains, the dysuria, the excretion of sand, the ammoniacal odor, etc., etc., rapidly disappear under the influence of the medicine.

4. The retention of urine dependent on these various affections often disappears as improvement progresses, but the use of the sound must sometimes be continued, in order to empty the bladder completely.

5. The stigmata of maize have very often produced a cure after all the usual internal remedies had been tried in vain, or with only partial success. In other cases the ordinary methods of treatment, which had at first proved more or less entirely useless, became efficacious after the stigmata had been administered for a time, and had, as it were, broken the ground for them. Most frequently the stigmata alone sufficed for the cure, but still in some cases the effect was incomplete, and it was found that the treatment could be varied with benefit. Injections and irrigations of the bladder also proved useful adjuncts to the maize.

6. As the stigmata of maize are a very powerful, though at the same time entirely inoffensive diuretic, they have also been employed with the best results in cases of heart disease, albuminuria, and other affections requiring diuretics. Cases have been reported in which the urinary secretion was tripled and even quintupled in the first twenty-four hours, and others where the exhibition of the drug was continued for two or three months without the slightest untoward effect.

7. The best preparations of the stigmata are the extract and a syrup made from it. The decoction is unreliable and uncertain. The syrup, the usual dose of which is two or three teaspoonfuls per diem, must be largely diluted, and for this purpose either hot or cold water, or a decoction of the stigmata may be used. The taste of this mixture is very agreeable. It should be given fasting.

Another remedy for diseases of the bladder that has lately begun to attract attention, is the *arenaria rubra*, a plant of the order of caryophyllæ. It is known in Algeria by the common name of *sablier*, and has long enjoyed repute in Malta and Sicily as a household remedy for the treatment of gravel and catarrh of the bladder. It seems to be useful in the same line of cases as the stigmata of maize, but as yet our knowledge concerning its powers and uses is very limited.—*Le Courier Médical*, May 3d and July 12th.

DR. J. MARION SIMA.—Among the passengers on the Germanic, which arrived in this city Sept. 6th. we notice the name of Dr. J. Marion Sima.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 13, 1879.

PREVENTIVE MEDICINE.

The day in which the idea that the whole function of medical men began and ended with the treatment and cure of disease has passed away. There has been what is sometimes called "a new departure" in medical science, and the profession has revived the old doctrine that, in addition to administering drugs, something may be done toward the prevention of disease. The rigorous separation of the sick from the healthy had its origin under the Mosaic dispensation. State medicine is fully set forth in the old Hebrew ordinances, and had the sanction not only of the most cultivated race in the world, but of Divine authority.

There is an apathy and stagnation regarding the importance of State medicine and public hygiene which has its foothold, to a very great extent, in the too negative character of past observations and published statistical results. Those who object to sanitary measures have been accustomed to allude to the negative results of sanitary expenditure, and have boldly asserted that mortality statistics afford no evidence of sanitary progress. In a former article we had occasion to speak of the speciousness of such argument, and what we then said regarding another subject, intimately related to actual population, is equally true with reference to sanitation and mortality—namely, that even a stationary death-rate must be accepted as evidence of progress.

It seems to us self-evident that, if by the aid of sanitary science the rate of mortality can be made stationary, notwithstanding the aggregation to large towns and cities, it must be regarded as one of the triumphs of improving sanitary organization.

At the recent meeting of the British Medical Association, Dr. Andrew Fergus, President of the Faculty of Physicians and Surgeons of Glasgow, read an able address on preventive or State medicine, in which he

gave an analysis of the whole of the Registrar-General's returns, and from these he shows clearly that the death-rate in England and Wales is declining; or, in other words, that the mean duration of human life is increasing. The marked decline in the fatality of fever, especially of typhus, he justly attributes to the benefits arising from the adoption of thorough sanitary measures.

There are one or two points in his address to which we wish to call especial attention.

"The first facts that strike us," says Dr. Fergus, in speaking of the lessons drawn from the Registrar-General's returns, "are the increase in the diarrhoeal group, the addition of a new zymotic, viz., diphtheria, which does not appear until 1851, and the small diminution of typhoid in the fever group. If we bear in mind that these are excremental pollution diseases, I believe we shall find the reasons of this increase in the fact that we have been careless in the disposal of our excreta, and have been drinking water and breathing air contaminated by it in a state of decomposition."

In the reports which Mr. Simon and Dr. Greenhow have made to the Privy Council can be found the following significant paragraph: "The excess in mortality has in all cases been coincident with one or other of two definite local circumstances: (a) the tainting of the atmosphere with the products of organic decomposition, especially of human excrement; or (b) the habitual drinking of impure water."

It is an opinion which has generally prevailed that removal of refuse-matter by water is one of the most effectual methods that can be employed, and just here Dr. Fergus's experience becomes especially interesting. We can do no better than to use his own language: "When I first turned my attention to public health, I had the most perfect faith in water-carriage for removal of the refuse of communities; but investigation, experiment, and experience have obliged me to change my opinion. It is a popular opinion that water is a purifier, but in regard to human excretal matter it is a mere shunter. It merely removes the nuisance from my door to deposit it somewhere else, but does not destroy it."

In accordance with this view, he reasons that these offensive matters should not be passed into rivers or into the sea. The results of his experiments have been, that when kidney and bowel secretions are kept separate, decomposition goes on very slowly; if they are mixed, it is more rapid; and if water be added, it is much accelerated. Therefore, as chemical science has told us that water of itself and by itself has no purifying power, we must go back to earth, the original mother of all organized matter, for reliable aid in preventing putrefactive decomposition.

After years of study and observation, this able observer reaches the conclusions that, "if it is true

that organic poisons producing disease may pass from sewage; if it is true that cholera, diphtheria, typhoid fever, and diarrhoea are traceable to taking into our systems, by air or water, the results of decomposition of human excreta; if it is true that these diseases and others from the same causes swell our death-rate and carry off some of the most valuable of our population, then I affirm that the only true sanitary solution of our difficulties is, that all excreta shall either be returned to the earth, or subjected to chemical action rendering decomposition impossible; and I am, furthermore, sure that if a little of the time, skill, and ingenuity, and a one-thousandth part of the money that have been devoted to water-carriage had been spent in investigations in this direction, the problem of the sewage question would have been solved long ago."

The system of water-carriage, as Dr. Fergus says, was hailed as a boon both of comfort and of decency, and the popular opinion, at least, has been that there was no better way of avoiding the evil consequences following the prolonged presence of these matters than by removing them by means of an abundant water-supply. It does not necessarily follow, however, if this be not true, that we should return to the abominations of the old privy system, for the resources of sanitary science are numerous and effective.

Commenting upon this address, the editor of *The Medical Press and Circular* says that appeal can be made to positive facts, which prove the possible and salutary results of preventive medicine, and he refers to instances in which the death-rate has been reduced, within a single quarter, from 23 per 1,000 to 8 per 1,000 by a new system of sewerage and new water-works.

There can be no reasonable doubt that the best way to treat every disease is to prevent its occurrence. It is not always possible to do this, but certainly it cannot be safely assumed that, because the disease does not come after precautionary measures have been taken, sanitation is of no avail. Maintain all communities and all houses in good sanitary condition; remove all magazines of decomposing organic matter which are ready for explosion from the presence of a single spark. The terror which an epidemic disease inspires renders it almost impracticable to institute requisite preventive measures, and that which has not been effectively accomplished before the outbreak of the epidemic, must, to a large extent, be postponed until its ravages have passed.

The ideas which Dr. Fergus has presented in his address are worthy of consideration by our ablest sanitarians.

AN APPEAL FOR AID FOR MEMPHIS.

On the fourth of September the Howard Association of the city of Memphis made a public appeal for moneyed assistance in resisting the deadly march of the

epidemic of yellow fever. For two months they have battled with the dread destroyer, and now find their treasury exhausted, several hundred sick and convalescents to be provided for, and a large number of nurses to be paid. In their appeal they state that they were hopeful in the beginning that, with the fund then on hand, they would be able to provide and care for the sick; but now, at the end of two months, during which the disease has been in their midst, and with two long months of danger before them, they find their resources exhausted and are compelled to ask for substantial aid. In the year 1878 a like appeal was heard, and the ready heart and willing hand of the medical profession went searching into its pockets, and there came forth that which did honor to the charity of the medical men of the nation.

To the charity of a common people the Howards now appeal for aid in alleviating the suffering of a common brotherhood.

The appeal in 1878, made in the name of the medical profession, and also by the Howard Association, met with a prompt and substantial response, and in 1879 like appeals cannot go unheeded. While our inclination may be to send aid more especially to our own representatives in the field, to their widows and to their orphans, we cannot turn a deaf ear to the statement, "if help is not speedily furnished, we will be compelled to abandon the work we have been engaged in, and leave hundreds to suffer and die for want of a Howard's helping hand."

HEALTH AND RECREATION.

THE summer vacation is practically closed. The shortening days and the approach of foul weather has already reopened the offices of many of our physicians. They have been out for recreation and have returned ready for work. They have sought recreation believing it to be an essential to the proper preservation of health and the prolongation of life. They endorse the work and play side of the question, and regard the one as essential as the other if the best practical results are to be obtained. Not long since Dr. B. W. Richardson, F.R.S., delivered a lecture at the London Institution, in which he took the position that, both in the young and the old, there was no difference between work and recreation other than one of sentiment. He believes that the reason why such excellence, physical and intellectual, was attained in the short and brilliant bloom of Greek history, was because in the Greek's career, from beginning to end, there was no such thing as work or play, but only life.

Commenting on this lecture, the *London Times* says that, if we could by some means approach the ideal handed down to us by history, we should in a generation or two attain a degree of health which no mere sanitary provisions, in the usual sense of the term, can ever supply, and the same sentiment is as practically applicable here as there. There are conditions of life

such as pertain to our climate and manner of living, which perhaps will prevent us from realizing the joyousness of Grecian life. But, besides these, there is the unequal struggle for existence, which dooms so many to the monotonous round of toil until the whole body lends itself to the drudgery like an automaton.

"There is a striking exception," says the learned lecturer, "in the happy class who find in mental labor, of a varied and congenial sort, that diversity of work which is truly a recreation of the healthy and vital powers." To confirm this view, he refers to the conclusion, reached by Dr. Beard, of this country, after examining the life-value of five hundred men of the greatest mental activity, and an equal number belonging to the rest of society—which is, that the brain-workers have a life-value greater by fourteen or twenty years than those whose pursuits are chiefly physical. Dr. Richardson, as well as others, have ascertained that the most influential in prolonging human life is the recreative character of intellectual labor.

Again, the *Times* alludes to Dr. Beard, who describes brain-work as the highest of all antidotes to worry. Scientists, physicians, lawyers, clergymen, orators, statesmen, literati, and merchants, when successful, are happy in their work without reference to reward, and work on in their callings long after the necessity has ceased. Good fortune gives good health, and nearly all the money in the world is in the hands of brain-workers, whose life is one long vacation.

Whether it be true or not that the difference between work and recreation is merely sentimental, there is comfort in mental and physical recreation which can be obtained only by absenting one's self from the drudgery of routine and, to a great extent, automatic labor. A grain of consolation for so doing can be obtained from Plato, who warned his readers against over-cultivation of mind, which, so far from being recreative to the health of the body, would be positively injurious, just as an over-cultivation of muscular power might prove mischievous.

Profiting by the suggestion, we may therefore, avail ourselves of every opportunity that presents itself to resort to the sea-shore or to the mountains, in the belief that by so doing all life will be made healthier, happier, and longer.

ANTIMONY IN PHTHISIS.—In phthisical patients attacked with bronchitis there is a condition of the bronchial mucous membrane fraught with peril to the patient. The membrane is congested, swollen, dry, and coated with a thin but tenacious and irritating secretion. This condition may continue for days, producing fever, and paroxysms of ineffectual coughing which exhaust the strength of the patient. In these cases nature fails to bring relief, and our knowledge of the physiological properties of drugs becomes available. There are several that will excite the secretion, but the best is antimony. This, given in doses of $\frac{1}{16}$ th of a grain every hour, will, after a dozen doses, relieve the patient and avert his danger.—*Andrew Clark in Address at Brit. Med. Ass'n.*

Reviews and Notices of Books.

LONG LIFE AND HOW TO REACH IT. By JOS. G. RICHARDSON. American Health Primers. Philadelphia: Lindsay & Blakiston. 1879.

We have already referred very favorably to the American Health Primers, and this one, which is the second on the list, is likely to maintain the reputation of the series. The author offers us no *elixir vita*, but gives plenty of sensible advice, and those who have the self-control and intelligence to adopt it will reach all the length of days that their constitution allows them.

A TABULAR HANDBOOK OF AUSCULTATION AND PERCUSSION, for Students and Physicians. By HERBERT C. CLAPP. With four plates. Boston: Houghton, Osgood & Co. 1879. 8vo, pp. 97.

WITH the many handbooks on physical diagnosis now in the field, any new one must have some special and notable merit in order to justify its existence. We confess that we are unable to see any great necessity for the publication of the present book. It is simply a tabular presentation of the physical signs belonging to the diseases of the heart and lung, with a tabular analysis and description of the signs themselves. These tables are very well gotten up, and appear to be thorough and reliable. Still, they embrace nothing that is not found in other elementary text-books. We might perhaps find fault with the author for not including diseases of the abdomen in his book, the physical signs of which being often so intimately related to those of the chest. It is certainly not the thing for a professor in physical diagnosis to teach that the inspiratory sound is caused in part "by the forcible separation of the walls of the pulmonary vesicles." That is not a fact, and is scarcely a plausible theory.

The four illustrations represent the position and relations of thoracic and abdominal viscera, and the name of the firm is a sufficient guarantee that the book is a finely printed one.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF TENNESSEE. 1879. Nashville: Printed at "The American" Book and Job Rooms, 48 Church Street.

It is a volume of 215 pages with paper cover, and contains some interesting articles. The Roll of Honor contains the names of fourteen members of the society who lost their lives in the yellow fever service during the year 1878, and, in the report on the Roll of Honor made by Dr. Wise, a tribute of respect is paid to "the forty-two physicians who, in the city of Memphis, fell at the post of duty and upon the field of honor."

A valuable clinical report on yellow fever, with meteorological observations, is found in the paper by Dr. G. B. Thornton, of Memphis, on observations made in 460 cases. This is followed by an interesting paper regarding the introduction and dissemination of yellow fever by persons or personal contact, by Dr. W. T. Hope, of Chattanooga, Tenn. These are valuable contributions for study at the present hour.

TRANSACTIONS OF THE MICHIGAN STATE MEDICAL SOCIETY. For the year 1878. Lansing: W. S. George & Co., Printers and Binders.

THIS volume has a paper cover, and contains 380 pages. The minutes of the recording secretary make

up a large part of the book. These are followed by the annual address of the president, and nine papers on interesting surgical, medical, and obstetric subjects. The Report of the Committee on Necrology embraces memoirs of Drs. Abram Sager, Albert E. Leete, and Edward E. Hume. A pleasing appendix contains a report of the proceedings at the annual reception.

PROCEEDINGS OF THE CONNECTICUT MEDICAL SOCIETY. 1879. Published by the Society. Hartford, Conn.: Press of The Case, Lockwood & Brainard Co.

THIS volume, paper cover, contains 214 pages, and has, besides the report of the usual proceedings at the annual meeting, the President's Address; a dissertation on the Principles of Hygiene and Conservatism in their Mutual Relations to Surgery; the Report of the Committee on Matters of Professional Interest, which embraces several interesting subjects and makes up a considerable portion of the book; essays on Yellow Fever; Alcohol as a Therapeutic Agent; and The Insane Colony at Gheel; several obituaries; a List of the Officers and Members of the County Medical Societies; the Charter of the Medical Department of Yale College; the Charter and By-Laws of the Society; and the Code of Ethics of the American Medical Association.

The last is not the least important of the documents herein presented, yet it doubtless will receive the least amount of candid attention. It makes interesting reading, and should be sufficient to give the volume a local habitation in every medical library.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF NEW YORK. For the year 1879. Syracuse, N. Y.: Truair, Smith & Bruce, Printers.

THIS volume, containing 700 pages, presents an external appearance that is creditable both to the committee on publication and to the printers. In addition to the regular order of material which enters into the contents of the book, we notice the minutes of the Seventieth Annual Meeting held February 1, 1878. This completes the published record of meetings.

The readers of THE RECORD have already had opportunity to read and to study many of the papers which were read at the last annual meeting of the society; but as we glance at them in their new home we find that they have lost none of their original excellence and interest. According to resolution, the metric system finds its place in the body of the work, and although a few errors have found a lodging-place here, they must be regarded as no more than the tares so commonly seen in a good field of wheat. They have been recognized by the secretary, who has directed attention to them in the corrigenda at the end of the list of county medical societies. The volume contains the list of officers and members of every society entitled to send delegates to the State Medical Society, and, with one or two exceptions, these have been corrected up to the time of the last annual meeting of the various county medical societies. This is a commendable feature of the book, and reflects credit upon the industry of the secretary.

Space does not permit of an extended review of each paper, and we must be content with the statement that in general they are good; some of them very excellent, and are from gentlemen of deserved and recognized position in the medical profession.

This volume will make a valuable addition to the series which contains the transactions of the Medical Society of the State of New York.

Reports of Societies.

THE AMERICAN DERMATOLOGICAL ASSOCIATION.

Third Annual Meeting, held in the City of New York. August 26th, 27th, and 28th, 1879.

(Concluded from page 232.)

WEDNESDAY, AUGUST 27TH.—SECOND DAY.—MORNING SESSION.

THE first paper on the second day was one by DR. H. G. PIFFARD ON

VIOLA TRICOLOR.

The first part of it was devoted to a *résumé* of the literature of the subject, in the course of which he quoted at large from Cazin, who has experimented considerably with the drug, and used it with success in practice. He then read as follows from a brief article upon it, written by himself in the American edition of Phillippe's *Materia Medica and Therapeutica*, which has just been published by Wm. Wood & Company, and of which he is the editor:

"*Active Ingredients*.—Little known. Boullay failed to find violine in the plant. (Gubler.)

"*Physiological Action*.—A strong infusion made from 3 ss. to 3 j. of the herb, without the root, does not give rise to any suspicion that it contains violine or emetin. Its action is exceedingly mild; sometimes proving slightly laxative, at other times diuretic; as a rule giving rise to very little disturbance.

"*THERAPEUTIC ACTION*.—Viola tricolor has long been a favorite in France in the treatment of eczema capitis et faciei, and the editor has employed it for many years with great satisfaction in chronic cases of this affection. The watery preparations have appeared to answer better than the alcoholic, and our usual procedure is to give it in infusion, combined with purgative doses of senna for the first few days. Afterwards the violet is continued alone. For children Cazin macerates 3 j. to 3 ij. in half a pint of cold water for twelve hours, then boils the infusion and adds a little milk and sugar. This amount to be taken daily. . . . The imported herb should be employed, and care taken to procure a good quality. Most of it in the market is inferior."

Dr. Piffard exhibited various specimens of the drug, procured both in this country and abroad, and stated that it was very difficult to get two that were at all alike. He also showed a fluid extract which was made from some that he had had imported. He believed it to be of the greatest service in eczema about the upper part of the body, and especially the head; while when the affection was situated on the lower part of the body he had found it to be frequently aggravated by the drug. The dose of the fluid extract for adults was a fluid drachm, and for children five to ten minims.

The paper was discussed at length by Drs. Taylor, White, Hardaway, Fox, Sherwell, Wigglesworth and Heitzman.

The next paper was by DR. VAN HARLINGEN, and was devoted to

A CASE OF HITHERTO UNDESCRIBED VESICULO PUSTULAR DISEASE OF THE SKIN

The patient was an unmarried German woman, thirty-nine years of age, whose family history was good, and who had never had any tendency to scrof-

ula. The skin trouble began at a very early age, but was noticed in an aggravated form when she was fifteen years old. It had continued ever since, but was always somewhat better in the early autumn than at any other time of the year. On examination it was found that there were two forms of disease present. The first was an eczema, ill-defined and irregular, and principally located on the head, anus, and back; while the second, which was situated almost entirely on the legs and ankles, consisted of single lesions. These were large tubercles, distinct and solitary, oval in shape, and often of the size of a thumb-nail. They were slightly elevated, and in some a small amount of pus was found in the centre, which was depressed. When these tubercles began to form, there was first local itching, and then an urticarial elevation. In about eighteen hours they were fully developed, and had reached a size of from one to one and a half centimetres; looking somewhat like large mint-drops. Later, exudation took place, and finally depression in the centre; the fluid becoming pustular. The nodule might last altogether for years; but at length it became pigmented and sank to the level of the surrounding surface, a white spot always being left in the centre. Itching was not excessive, and there were no marked subjective symptoms. Iodide of potassium and bichloride of mercury were tried without benefit, and the only thing that seemed to cause any improvement whatever was the application of Dr. Bulkley's *liquor picis alkalinis*, which was employed for about a month before the patient passed from observation.

The lesion was at first supposed to be probably a scrofuloderm; but a microscopical investigation showed it to be of a purely inflammatory nature. There was nothing like a genuine cell-infiltration, such as is characteristic of the scrofuloderm.

After remarks upon the case by various members, Dr. S. SHERWELL read a paper entitled,

"TATTOOING OF NÆVI"

At its commencement he passed around the instrument with which he had performed his operations, and which consisted simply of a bundle of coarse needles securely fastened together. It had been constructed by Dr. Sherwell himself. The paper, he stated, was supplementary to one which he had previously read before the New York Dermatological Society, and in which the method had been fully described. He wished now merely to speak of its continued success, and to describe one case in particular where the result had been very satisfactory. The patient was a lady of twenty-seven, who before he took her case in hand had been so disfigured that it had proved not only a source of annoyance, but also of positive detriment to her in obtaining the kind of employment that she was best suited for. The nævus was of the port-wine-stain order, and covered the whole of the chin. There was also a large patch of similar discoloration in the centre of the cheek. The latter was cured after one operation; but four had been performed upon the principal nævus. Two were extended over the whole surface, and two had been confined to those portions where there was the most disfigurement left after the two general tattooings. In one final operation, shortly to be performed, it was thought that the cure would be completed.

Dr. Sherwell stated that he had not changed his after-treatment since he had written his last paper, and that he was more than ever favorably impressed with the advantages of the application of collodion.

As mentioned before, he had hitherto used only an instrument of home manufacture; but at present Tiemann was making one for him which he hoped would prove even more serviceable. He wished it distinctly understood that the only nævi which he claimed to cure in this way were of the cutaneous variety.

In the discussion which followed the paper Dr. HARDAWAY spoke in the highest terms of the method of treatment by means of electrolysis, where a number of very fine needles were employed.

The next business in order was the report of the Committee on Statistics, which was made by the chairman, Dr. White, and which contained a special report on the subject of leprosy in this country. This was followed by the report of the Committee on Classification and Nomenclature, made through its chairman, Dr. Duhring, which recommended that carcinoma should be made a separate subdivision under Class VI. (New Growths), in the classification adopted by the Association last year. On motion, the recommendation was adopted.

AFTERNOON SESSION.

Dr. HARDAWAY, of St. Louis, read a report of
A CASE OF MULTIPLE TUMORS OF THE SKIN ACCOMPANIED BY INTENSE PRURITUS.

The disease in question had existed for twenty-two years, the patient now being fifty-one years of age. It was stated that the first lesions were "blisters," accompanied with itching, and that whenever the fluid from one of these blisters came in contact with sound skin, another similar lesion was produced. Not long afterwards the tubercles and tumors from which the patient now suffers made their appearance, and they have remained almost without change ever since. These tubercles and tumors (the latter ranging in size from that of a pea to that of a hickory nut), the writer said, were about in equal proportions, and a very curious feature of the case was that they were exclusively confined to the arms, hands, legs and feet; the area affected terminating abruptly at the shoulders and the knees. In their natural condition these lesions are covered with thickened epidermis, but, as a general rule, this had been removed by scratching. In some cases the tumors had come together, forming a large nodular mass, and, in addition, there were a number of flat plaques of the size of a child's palm. The intolerable and persistent itching was the most annoying feature of the case, and had given rise to much irritation of all the affected parts.

The patient had taken iodide of potassium, arsenic, mercury, and other remedies, and cauterization of the tumors had also been resorted to. She thought the pruritus had diminished somewhat during the last few months; but the scratch-marks were still painfully evident. The peculiar limitation of area, the intense itching, the persistence of the lesions; and, notwithstanding all, the good general health of the patient, seemed to make this a unique case. Specimens from the lesions had been submitted to Dr. Heitzman for microscopic examination, who reported that there was marked hyperplasia of both the epithelial and connective tissue, and that he regarded the trouble as an inflammatory affection of the upper layers of the skin.

The next paper was by Dr. DUHRING, and entitled:
SUPPLEMENT TO A CASE OF INFLAMMATORY FUNGUS (GOID NEOPLASM).

The case referred to was the one in regard to which Dr. Duhring had written such an elaborate report for

last year's meeting, when he also brought the patient to Saratoga for examination. Before commencing the paper on this occasion, he exhibited a fine chromo-lithograph of a precisely similar case reported by Gehr, to which he had alluded last year. This, together with the cases of Piffard and Hebra (also referred to at that time), and the case under consideration, constituted all that had as yet ever been recorded. After the date of the last published notes in regard to it, October 1, 1878, the patient continued to exhibit signs of increasing cachexia, although a striking characteristic of her case was the variability of her condition from day to day. She suffered much from the profuse suppuration of the lesions, which was accompanied by the most extreme fetor. The consolidated tumors on the forehead increased to an enormous size, and at last presented a striking resemblance to a huge roasted tomato. As it gave her so much annoyance, and she was exceedingly anxious for the operation, it was finally removed by the galvano-cautery, and although the growth was remarkably vascular, there was no hemorrhage whatever. This was true, also, of the removal, in a similar manner, of a large tumor in the popliteal region. In this respect a striking contrast was presented by the two former operations, which were described last year, and which, as they were performed with the knife, were accompanied by a large amount of hemorrhage.

The case resulted fatally early in the month of May, 1879, and at the autopsy it was found that none of the internal organs were affected with the disease except the bladder, on the walls of which there was a growth corresponding in character to those on the exterior portions of the body. After a careful study of the whole case, Dr. Duhring concluded that the affection was, in all probability, of an inflammatory nature, although some of the microscopical features of the specimens from it seemed to point towards sarcoma.

DR. HEITZMAN regarded the disease, although presenting some very unusual clinical features, as distinctly sarcomatous, and thought the subsequent history of the case only substantiated the correctness of the views which he had expressed in regard to it last year.

DR. ATKINSON remarked that here the histological character of the tumors was, to a great extent, inflammatory; but combined with this were also the characteristics of a new growth. It was a case, therefore, which showed us the border-land between the two processes, and one that should teach us that we ought not to make boundary-lines for nature and expect her to keep strictly within them.

After remarks by DR. TAYLOR, who took Dr. Heitzman's view of the case, and DR. BULKLEY, who took Dr. Duhring's, DR. FOX said that he thought this discussion was an apt illustration of the conflict between microscopic and clinical investigation. Some erred on one side and some on the other; but he was satisfied himself that in all such cases as this, as long as our microscopical knowledge remained in its present state, the clinical features presented the surest basis for diagnosis.

As to Dr. Heitzman's unfavorable prognosis, DR. SHERWELL thought that it was pretty evident to all who saw the patient last year at Saratoga that she would die. The name fungoid neoplasm he thought a sufficiently good one in the present state of our knowledge of such cases, and especially as it did not exclude the idea of a sarcomatous element.

The last paper of the afternoon was by DR. HYDE, on

A VARIETY OF MOLLUSCUM VERRUCOSUM PRESENTING CERTAIN UNUSUAL FEATURES.

The patient was a native of Germany, thirty-five years of age, who, as far as known, had never had syphilis. Between two and three years ago he first noticed a number of spots on the left buttock, which were as large as pin-heads and of a white color. They then spread over both the thighs; finally exhibiting the features visible at the time the case was first seen (August 16, 1878), and at the end of a year from when they began, entirely disappeared. Three months afterward, however, the eruption again broke out, and when first examined by Dr. Hyde it presented the following appearances: The integument of the trunk, buttocks, thighs, legs (to the tips of the toes), and, to a slight extent, the hands, was covered with bodies which looked like papula-pustules, but which were found to contain neither pus, serum, nor any other fluid. The newer lesions were of a dead whitish hue, and resembled miliums in their general appearance, while the older ones were of a delicate crimson. All, however, possessed the waxy white summit which was the distinguishing characteristic of the eruption. They involved the entire thickness of the integument, and were surrounded by perfectly healthy skin. By January, 1878, the lesions had almost disappeared; but as the warm weather came on in the following spring, there was a well-marked recurrence of the trouble. During the present season, however, the patient had been entirely free from the disease.

Owing to certain circumstances which Dr. Hyde explained, no microscopical examinations of the lesions were made. The writer discussed the probability of the affections being atelangiectasic or a lymphangiomatous growth, and expressed the opinion that the diagnosis was by no means an easy one. After referring to various authorities and particularly mentioning Hutchinson's cases of *molluscum contagiosum*, he quoted a letter which he had received from Prof. Kaposi, of Vienna, in reply to one of his own describing the case, and said that in deference to the views stated therein he had concluded that it was probably one of *molluscum verrucosum*. At the conclusion of the paper Dr. Hyde exhibited a painting of the back, buttocks, and posterior aspect of the thighs of this patient, and the eruption was seen to present a very striking resemblance to that of small-pox.

Dr. Hyde also stated that under the finger the lesions felt very much like the variolous papule before the stage of pustulation.

DR. ATKINSON mentioned a case of probably similar character which he had met with in the person of a young mulatto woman. Unfortunately, however, the patient had almost immediately passed from observation.

THURSDAY, AUGUST 28TH.—THIRD DAY.—MORNING SESSION.

The first paper read was by DR. WHITE, on

ETIOLOGY.

In opposition to many of the primitive beliefs handed down from former generations and still prevalent in the minds not only of the laity, but a considerable part of the profession, as well as to many erroneous theories of more recent origin, the writer urged the following points with great force:

1. The autonomy of the skin, or its inherent right to diseased action.

2. That the pathological processes found in the skin were identical with those met with in other parts of the system.

3. That the same methods of observation and induction which were employed in the investigation of disease in all other portions of the body were equally applicable to the skin also.

In his criticism of various unfounded opinions (according to his views), the writer scouted the idea of diathesis, as advocated by the French school of dermatologists, and the whole tone of the paper was strongly in support of the local, rather than the internal origin of diseases of the skin. It was followed by a prolonged and animated discussion, which was participated in by Drs. Heitzman, Fox, Sherwell, Taylor, Bulkley, Hyde, Wigglesworth, Van Harlingen, and Hardaway.

The next paper was one by DR. R. W. TAYLOR, of New York, on

THE NATURE OF SYPHILIS.

In the first part of it he took up in turn the various terms which have been employed by different authorities to express the nosological relations of syphilis, and pointed out to what extent they were all incorrect and unsatisfactory.

The remainder of the paper was devoted to a statement of his own views, as follows: Our own conclusion is that syphilis is a disease of the connective tissue, and not primarily of the lymphatics or of the blood-vessels, although the blood may be temporarily modified and may be the vehicle of contagion.

The secretions of syphilitic lesions are found to consist of a serous fluid containing numerous shining granules or molecules, which are masses of protoplasm or germinal matter, holding the contagious properties of syphilis. These microscopic bodies are probably taken into the circulation by the lymphatics and conveyed over the body. Possibly they are absorbed by the blood-corpuscles, or the latter are infected in some mysterious manner by these actively increasing morbid cells. The fact that serum alone does not convey the syphilitic poison goes to prove that the corpuscles hold the contagious material.

In the secondary period of syphilis these cells are very numerous, and the body may be covered with papules and tubercles composed of them. As the disease wanes, these lesions become more localized and fewer in number, and the blood is less contagious. Finally these cells may be limited to a few gummatous tumors; the blood no longer carries the molecules, and it loses its contagious properties. The cells no longer have a tendency to reproduction, which characterizes them in the early stages, but rather degenerate. Hence we consider the blood and secretions in tertiary syphilis innocuous. Even if cells are present, they are old and inactive, and are incapable of reproducing themselves. Lancereaux states that he has often punctured himself in making autopsies on subjects with gummy tumors, and has never seen any bad result.

The periods of latency observed in the course of syphilis are of interest, and may perhaps be explained in the following way: Each outburst is attended by the development and multiplication of the peculiar cells, which run their course and are finally absorbed. Some remain, and after a time are excited by unknown causes to activity. Thus repeated exacerbations may recur, each one depending upon the multiplication of cells remaining from a previous outburst. But each relapse is less active and less prolonged than its predecessor, until perhaps only one nodule, and that composed of effete cells, may remain. The disease is then cured. This explanation may seem to apply imperfectly to those cases of prolonged latency

in which no lesion whatever has been perceptible. Virchow thinks that in these cases the lymphatic ganglia have been the places of deposit of the syphilitic cells, which, at the expiration of the period of latency, undergo the changes mentioned. In any case, the specific cells must be hidden away somewhere in the system, since the continuance of the disease depends upon their existence.

With this view of the nature of syphilis, its effect upon the health and upon the organs and tissues may be readily comprehended. In the early active stage of proliferation the red globules are diminished and the white increased in number. The depressing influence of syphilis is thus fully accounted for. Digestion is impaired and the tissues are poorly nourished. Finally, the functions of vital organs may be perverted, or destroyed by the cell-changes produced.

DR. ATKINSON said that he was somewhat surprised that Dr. Taylor should speak of a specific cell. He believed that in nature only a certain kind of cells would be found under any circumstances, and he did not see how it was possible that any different ones should be formed. Neither could he imagine a condition in which the cells referred to by the writer should become so old as not to be reproductive, if they were alive at all.

DR. HEITZMAN thought that too much was assumed in the paper, and not enough proof given in support of the statements made. Let us demonstrate what syphilis is, said he, and then we can form any number of hypotheses.

In reply to the latter, DR. TAYLOR remarked that all the points stated by him had been substantiated by the careful microscopical investigations of Lancereaux, Wagner, and a host of other distinguished authorities.

The last paper was by DR. HARDAWAY, on

A SIMPLE METHOD OF OBSTRUCTING THE VARICOSE VESSELS IN ROSACEA.

The procedure recommended was essentially the same as that described by Dr. Hardaway in his paper, presented last year, on the removal of superfluous hairs. Electrolysis, by means of a fine needle (No. 18 cambric), was the agency employed; the only difference being that it was unnecessary to introduce the needle to such a depth, or keep it in the tissues so long, as when the aim was destruction of a hair papilla. Six or eight cells of a moderately good battery were sufficient, and a few seconds all the time that was required for the operation. If the vessel was a long one, however, two or more punctures along its course were required. When a small needle, like that recommended, was used, the parts presented no abnormal appearance whatever afterward, and no cicatrix remained. Dr. Hardaway had performed the operation successfully in several cases, but he could not speak with any great confidence of it as yet, although he felt thoroughly convinced in his own mind that it would prove of great service. His principal object in bringing the matter before the Association, however, was to induce the other members to make a trial of it when they had the opportunity.

With a discussion on the paper by Drs. White, Wigglesworth, Hyde, Sherwell, and Bulkley, the scientific proceedings were brought to a close.

On motion of DR. WHITE, a vote of thanks was tendered the retiring Secretary, Dr. Taylor, for the efficient manner in which he had performed the duties connected with the position, and the satisfactory and comfortable arrangements which he had made

for the meetings and the accommodation of the members during the last two years.

In a few concluding remarks the President, Dr. DURING, congratulated the Association on the great success of the meeting just brought to a close. The papers, he said, had been able and the discussion most interesting and profitable, while the sessions were completely harmonious throughout. He was deeply conscious of the high honor which had been conferred upon him in electing him to the presidency a second time, and he could only say that in the year to come he would do all that he could to promote the interests of the Association and to render it as useful an organization as possible.

The Association then adjourned to meet at Newport on the last Tuesday of August, 1880. In the afternoon a clinical meeting was held at the New York Hospital, for the examination of various cases of interest that were presented by the members from New York and Brooklyn.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, June 11th, 1879.

DR. J. W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

(Continued from page 212.)

FIBROUS TUMOR OF THE UTERUS.

DR. FINNELL presented a uterus, to which was attached one large and several small fibroid tumors. The large one was attached to the fundus, and all were subperitoneal. The entire mass weighed four pounds. The uterus measured five inches in length. The os was normal, and indicated that the woman had never borne children. The large tumor was calcified.

The specimen was removed from the body of a woman 58 years of age, who had been gagged and murdered at her residence in Forty-second Street of this city.

The brain, lungs, kidneys, and other organs were apparently healthy, with the exception of a moderate degree of congestion. The lungs were slightly oedematous. There were no blood extravasations in either the brain or the lungs. It was thought that she died from suffocation. The right side of the heart was empty, and all the valves were healthy.

FIBROUS TUMOR OF THE UTERUS—CYST OF THE RIGHT OVARY—CYSTIC DEGENERATION OF THE LEFT KIDNEY.

DR. LEO presented a fibroma of the uterus, a cystic ovary and a cystic kidney removed from the body of a woman 48 years of age, who was a patient in the service of Dr. Blumenthal in one of our public institutions. The patient first began to complain last December, when she had pain in the region of the kidney and other symptoms, and passed only about twelve or fourteen ounces of moderately albuminous urine daily. Not long after she had considerable oedema of the lower extremities, and a month later still there was distention of the abdomen, which increased steadily. Dr. Blumenthal then made a diagnosis of fibroma of the uterus, and thought there was also other disease present.

The case progressed from bad to worse, the abdominal distention increasing, diaphragmatic respiration became seriously impeded, threatening asphyxia developed, and upon consultation the abdomen was

aspirated, and four or five gallons of fluid drawn off. It was examined microscopically and spectroscopically, but with only negative results. An additional gallon of fluid discharged spontaneously. The wound closed, the peritonitis continued for about twelve days, and finally subsided with every indication of recovery. Suddenly the urine became excessively albuminous, sp. gr. 1080. Uræmia developed, and death occurred two days ago.

At autopsy a fibroid tumor was found attached to the uterus, and there was also a cyst of both ovaries. The right kidney was also cystic; but it was impossible to remove the kidneys on account of excessive softening and fatty degeneration.

An interesting point in treatment was that neither of the cysts was punctured when the abdomen was aspirated. The cysts each contained about a pint and a half of fluid, and there was besides about one gallon of fluid in the abdominal cavity. It was evident to Dr. Leo that the ascites was produced by mechanical pressure.

DR. BLUMENTHAL remarked that the patient was an unmarried woman, who, until six months ago, had enjoyed comparatively good health. It was not until her ovarian trouble developed that she began to complain. The cysts were not sufficiently large to account for the distention of the abdomen, and it was evident that there was, in addition, ascites. Aspiration was performed with the view of relieving the symptoms developed by the immense abdominal distention, such as difficulty of respiration, and not with the view of tapping the ovarian cysts. As far as direct results were concerned, the aspiration was successful, for the difficulty of respiration was relieved. An operation for the relief of the ovarian disease was contemplated, but was prevented by the death of the patient. The autopsy, however, revealed a condition which would have rendered an operation impossible.

FLESH MOLE.

DR. HEITZMAN presented what was sometimes called a flesh mole, or a placenta, in this instance in the fourth month of pregnancy, occurring in a patient of Dr. L. Weber. Microscopical examination revealed the presence of fat with only a small amount of the original placental tissue remaining. Almost the entire tissue had been replaced by hemorrhagic clots. The remaining deciduous portion had undergone extensive waxy degeneration.

VILLOUS MOLE.

Dr. Heitzman also presented what he denominated a villous mole, or a placenta, that had been entirely transformed into pedunculated berry-shaped masses. Microscopical examination revealed that these little bodies were cysts which contained blood, not in a fresh condition, but coagulated fibrin, and blood-corpuscles that were somewhat disintegrated. There was no evidence of waxy degeneration. The question arose whether such a villous condition could not be the starting-point of a future cystic mole.

Dr. Heitzman also presented a six-weeks' placenta with embryo in place, that had been brought to him by Dr. C. A. Loring. The entire placenta exhibited a yellow color, and had the appearance of fatty degeneration. Dr. Loring also expressed the opinion that it was probably fatty. But in that, as in others, the microscope revealed waxy degeneration of almost the entire solid part of the organ. The villous portion had also undergone waxy change.

With reference to the specimen of placenta presented by Dr. Putnam-Jacobi at the last Stated Meet-

ing of the Society, Dr. Heitzman remarked that it also had undergone marked waxy change.

There were doubtless protoplasmatic bodies in the decidua which were scattered globules of fat, but the fatty change was so slight in comparison with the large mass of homogeneous shining material, that he did not hesitate to say the principal degeneration was waxy in character.

The Society then adjourned.

Correspondence.

THE EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

II.

WHEN Mr. Smith urged me to see his child, after my consultation with Dr. White, I told him that I could not do so because Dr. W. was the regular attendant. Besides, I was overrun with work, and it was but fair that Dr. W. should have a start and make a living. I further said that I appreciated the feelings of a father who was anxious about his son, but, under the Code, I was forbidden to help him out of what he believed to be his difficulty. My assurance that the child would probably recover did not comfort him much; neither did he seem satisfied when I informed him that I would from time to time give Dr. W. such hints as occurred to me, as Dr. W. generally consulted me privately about his difficult cases. Such a trait, in my opinion, recommended him as a young man who was conscientious to his patients, and not afraid nor ashamed to learn.

Just then Dr. White dropped in the office and was somewhat surprised to see Smith and I in conference. Smith was, however, astonished, and for the moment did not know what to do. This gave me my opportunity to put both at their ease by saying that Mr. S. was naturally much worried about his child, and not knowing anything about the Code, had dropped in to talk over the case, and that I had comforted him by telling him that Dr. W. was just the man for the case, and that it was not proper for me to interfere by word or act. Dr. White was pleased, and the ice was broken for a general conversation. The latter ended by my promise to be present at a consultation on the morrow. After Smith left, Dr. W. and I had a frank conversation upon the proper relations which should exist between patient and physician, and between each other; at the same time he intimated that Smith seemed to be a little dissatisfied. White did not believe in keeping cases against the will of the patient, and became virtuously indignant at the want of confidence in him. So incensed did he seem that I was fearful that he might give up the case at once. However, I coaxed him to hold on and he finally left in good humor.

The following day I arrived at the patient's house before Dr. White, and waited for him at the bedside. While so doing I learned that Harry had three passages since the night before and was worse. The mother then showed me the medicine that Dr. W. had ordered. I said that there must be some mistake; that in fact the remedy was the same as the child had been taking when I called, and signified my desire to see the new medicine. When informed that the mixture was made by Dr. W. since the consultation, I at once smiled and changed the subject. The mistake

arose from the fact that Dr. W. had repeated the rhubarb and soda instead of using the chalk mixture. Although this annoyed me somewhat, I merely remarked that Dr. W. must have misunderstood me; that the medicine should be white instead of red, and that I would explain the matter to him when he came. In the course of the conversation I learned that each time after partaking of the medicine the child became worse, but I merely said that she could stop giving the remedy, and that we would make it right when the doctor arrived. Just then he came in. I had the bottle of medicine in my hand, and apologized for my apparent interference by remarking to him that he had misunderstood me, and that the child appeared to be worse. He blushed somewhat, and said that he had none of my medicine with him at the time; a remark which was very indiscreet in presence of an anxious parent. However, I said that as I carried it around with me always and used it a great deal, I would give him some. Accordingly I made the mixture on the spot, administered it to the boy, and retired to consult. White agreed to continue with the chalk mixture, and, when we returned, the boy said he felt good, wanted to sit up, and said he was hungry. I playfully remarked that he liked his medicine, and that he was getting better already. Dr. W. smiled also, and the mother seemed to be quite happy. Shaking hands with little Harry and patting his head, I took my leave, saying that the doctor had done everything necessary, and that I had nothing more to suggest. We left together. W. apologized for not using the chalk mixture the day before. I told him that it was a small matter, but was on my part sorry that I had alluded to the fact before the mother. The next morning White called on me to say that, although the child had improved the family had dismissed him, and urged me to see the case. I felt very delicate about the matter, but as I knew that my former partner would be called in, and as Dr. W. and the family were both willing, I consented, if sent for, to see the case through. After coming to such a conclusion, Dr. W. thanked me for what I had done for him, and assured me that he was willing to leave himself and his former case in my hands. Harry recovered in a day or two, but all I can do I cannot persuade the mother to employ Dr. W. any more. Can I do more?

I have often tried to impress upon Dr. W. the importance of humoring his patients, and have many a time told him that he was too dogmatic. On several occasions I have been placed in an apparently false position by his obstinacy. To give an instance: A wealthy gentleman from the city built a fine mansion in the village and came with a letter of introduction from a college professor to Dr. White. Dr. W., of course, had the family. I was glad to hear of his good luck, especially as the wife of the gentleman was an invalid, and required a great deal of attention. One day on driving past I was hailed by the servant, who asked me to step in and see his mistress. I obeyed the summons, and found a delicate lady reclining upon a lounge, complaining of a ball in her throat, great oppression in breathing, great pain in left side, and a desire to urinate frequently. She informed me that she was Dr. White's patient, but was somewhat discouraged with his treatment. I at once told her that Dr. White was a splendid fellow, one who had a great opportunity for working out her case; that although he had but few patients, he loved to study, and was, on the whole, a very safe, if not too cautious, a practitioner. But this did not quiet her pain. She said that Dr. W. had not only left her

medicine which made her worse, but that he had insisted upon her taking it in spite of the pain. I asked her, with honest incredulity upon my countenance, whether he actually said so. I tasted the medicine and repeated the question with a like answer. Being then assured that there was no mistake, I said that he was probably right, but that she had better not take any more of the medicine until I saw Dr. W. She then seemed better satisfied. I found, on questioning her, that Dr. W. had not made any vaginal examination, nor had he hinted at any. Some way or other she squeezed out of me an opinion that her whole trouble was uterine, and that an examination was necessary. I think I told her as much before I knew whether or no White had expressed any opinion. At all events to humor her, I examined her on the spot and discovered an abrasion of the os. I promised her that I would tell Dr. W. about it and left her without any further suggestion. Now W. is one of those stubborn chaps who do not believe in abrasions, but I tell him almost every woman has them, or ought to have them, and he will be always safe in a diagnosis. He informed me that he did not intend to humor such a prejudice on the part of his patient and seemed a little angry. In spite of all I could do when the husband of the lady sent for me to attend her, I could not persuade her that White was of the two doctors the better man. This case, by the way, narrowly escaped going to my partner, who is a uterine man, and who is favorably known among the laity as the inventor of a self-entering, self-retaining, back-action speculum. I do not think much of his instrument, however, as I have invented one of my own. It is needless to say that the case progressed favorably, and I secured a good fee. It might just as well have gone to Dr. W., but I did the best I could for him as a professional brother. The result of this case was published in our town paper, but as I was Chairman of the Committee of Ethics of our County Society, I explained the case satisfactorily.

Although I have gone somewhat in detail regarding the matter of this epistle, it has been my desire to show that with every appearance of having actually stolen patients from Dr. W., I did everything I could, "under the Code," to protect and befriend him. And yet there are some who say that there is no necessity for a code.

- FINE RIDGE ON THE HUDSON.

CHOLERA IN JAPAN.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The cholera epidemic which we reported last mail as severe in the southern provinces of this empire, has at last crossed the mountain barrier which separates them from the capital and the northern half of the island of Nipon.

Though the daily number of cases in Yokohama and Tokio are as yet few compared with that reached in the cities of Kobe and Osaka in June and July, there is still time for sad havoc before the cold weather sets in. The returns up to the 25th of July, from the infected localities referred to, show a total of 31,759 cases, 18,017 deaths, 3,781 cured, 10,011 under treatment. The daily number of cases in Yokohama at this date average from 15 to 20, with a mortality rate of about 50 per cent. The majority of these are received in a well-constructed pavilion hospital of 100 beds. The energy displayed by this people, to whom systematic treatment of epidemic diseases is nearly new in the use of the most improved

means of combating the spread of this scourge, is truly wonderful. We shall have occasion to speak of this in our report at the close of the year.

A detention quarantine of vessels from infected ports, which was established for a time with the hope of retarding at least the progress of the disease in this direction, has been raised, and the inspection system substituted.

D. B. SIMMONS, M.D.

YOKOHAMA, August 12, 1879.

TREATMENT OF YELLOW FEVER.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Notwithstanding the many communications regarding yellow fever, I cannot help writing a few lines in reference to an article in issue of RECORD August 16, 1879, where attention is called to the helplessness of physicians in the treatment of yellow fever of the past year. It is much to be regretted that our therapeutics is not more efficient; but, like all epidemics of the severer type, the same want of success will apply. This certainly holds good in the strongest sense in cholera, and yet there is no better field in the world than that which the army surgeons of India have for the study and the treatment of the disease. Every variety of treatment has been tried, and what has been apparently very successful in one year or one section, has been quite the reverse another season; this holds good with other diseases, and especially with yellow fever. Every year brings out some new treatment, to be again thrown aside next year as no more reliable, and as unproductive of good as the preceding. There is no question about the pathological condition being one of congestion—that is, one of the factors of the case, but one only. Watch the disease thirty or forty years, and the pathological condition will be an enigma. While the experiments of Dr. Leared are interesting, I can see no analogy between the cases mentioned and those affected with yellow fever. In the latter the blood is frequently thick and sluggish, having apparently lost its more fluid parts, and excessive sweating is not likely to replace it. In the treatment of yellow fever the induction of diaphoresis is an early desideratum, and is promoted by hot mustard pediluvium, warm teas, etc., bricks made warm, wrapped in flannel and sprinkled with alcohol, vinegar, etc. But those measures do not shorten the fever that runs its course while free sweating is progressing; but carry this to excess, which seems to be relied upon, and the patient's strength is exhausted, and there is not left the recuperative powers necessary to convalescence, and I cannot but think the excessive sweating induced by the Turkish bath, so far from relieving, would in fact have the tendency of inducing congestion of the brain. I have, in fact, witnessed cases where excessive sweating has been a strong factor in the cause of death. I would give cases, but this paper is now more than I expected to write.

JAS. COWLING, M.D.

HOUSTON, TEXAS, August 29, 1879.

NASAL CATARRH.—

B. Ext. pini Canadensis..... ℥xx.
Glycerine 3 ss.
Aq Oj.

M. To be used with post-pharyngeal syringe. This, it is said, will often cure when astringents utterly fail.—*Western Lancet*.

CONTROL OF PATIENT'S TONGUE DURING LARYNGOSCOPIC OPERATIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—During the past three years, and while engaged in the throat department of an extensive clinic, the writer has dispensed with any assistance from patients in holding or controlling the tongue during laryngoscopic operations.

By exercise and training of the fingers of the left hand it is not difficult for the operator to control the tongue, and at the same time to hold the throat-mirror in position with these fingers.

The manoeuvre, as practised by the writer, is as follows: The throat-mirror, heated, is held in the right hand; the tongue is grasped with and between the ring and little fingers of the left hand; the mirror is then placed in position and held between the thumb, index, and middle fingers (of the same hand), precisely as a cataract knife is held during operation.

As there is naturally little strength of grasp or unity of action between the ring and little fingers, some exercise and practice of these digits will be required so as to enable them to hold the tongue.

The ability to use the fingers in the manner indicated will of course give the operator the great advantage of having his right hand free for the use of instruments.

MICHAEL C. O'TOOLE, M.D.,

Late Demonstrator of Laryngoscopy and Diseases of the Throat, Medical College of the Pacific.

SAN FRANCISCO, CAL.

NOTE ON EPILEPSY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your last issue, Dr. Tanner, U.S.A., communicates notes of a case of epilepsy treated by means of a mixture of chloral and bromide of potassium. This plan is excellent, and has been put to a thorough trial in this city by Dr. A. McL. Hamilton, Dr. McBride, and myself. I now frequently employ such a mixture. Dr. Tanner will find all about this mode of treatment in various numbers of the *N. Y. Medical Journal* for 1878-9, under the title of "Proceedings of the New York Therapeutical Society."

Yours truly,

E. C. SEGUIN, M.D.

NEW YORK, Sept. 1, 1879.

New Instruments.

URETHRAL DILATOR AND SPECULUM.

By ALEX. W. STEIN, M.D.,

SURGEON TO CHARITY HOSPITAL, ETC.

DILATATION of the female urethra is an operation justly esteemed of great service not only for purposes of diagnosis and exploration, but for the treatment of urethral and vesical diseases of the female. But I believe I can assert that the instruments we have hitherto employed for this purpose are not satisfactory, too often rude, faulty in construction, and dangerous. With this conviction I have had constructed a dilator perfectly simple of manipulation, effective and safe, and which I think will be found a decided improvement upon instruments of a similar nature. It consists (see Fig. 1) of a metal tube, three and a half inches in length, with an obturator, elastic

and conical at the point which projects an additional inch beyond distal end, and which serves to facilitate the introduction of the instrument. One inch from proximal end (at A, Fig. 1) is a handle which supports a graduated bar and screw, by means of which the expansion of the instrument is effected. When closed it is thirty-three millimeters in circumference, and is capable of expansion to fifty millimetres. Fig. 2 represents a section of the instrument in a state of complete expansion.

The value of this instrument can only be appreciated when put to the test. Nevertheless, I trust its utility will be sufficiently apparent from description to invite for it a trial. It will be seen that the expansive force of the instrument is exerted equally and simultaneously on all parts of the circumference of the urethra, and not upon two or three points or sides of the canal, as with the instruments usually employed in urethral dilatation. Furthermore, the dilatation can be effected very gradually and with great precision, the degree of expansion of the instrument being determined with the greatest accuracy, even to a millimetre. The canal is stretched

one or more millimetres at a time, according to the amount of resistance felt, allowing sufficient interval of time to elapse for the tissues to relax. In this manner we conform to the conditions by which alone a maximum degree of dilatation without laceration can be attained. Indeed, the tearing or rupturing of the urethra, which, with the ordinary instruments employed, is the almost inevitable result when thorough dilatation has been made, and the troubles of incontinence of urine, etc., which such an injury often entails, are entirely avoided. Owing to the peculiar conformation of the instrument it creates very little pain even when dilated to its utmost.

A most satisfactory view of the urethra and bladder can be obtained either by means of the endoscope which can be attached to the speculum, or by means of the ordinary reflecting mirror.

Tiemann & Co., from whom the urethral dilator and speculum can be obtained, will adapt the same principle of mechanism to other dilating instruments.



CHANGE OF NAME.—The name "Louisville Medical News" has been changed, and the first number of the next volume of the journal will appear with the name "The Medical Age." We hope this racy journal may be successful under its new flag, but there is nothing that so comes home as the old flag under which we were born. If the worthy editors can protect their names from orthographical mutilations, we see no reason why their prosperity will not be heightened. In the event of such a calamity, we must beg leave to place them under the watchful care of the editor of the *Michigan Medical News*.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 6, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Misc.	Diphtheria.	Small-pox.	Yellow Fever.
Aug. 30, 1879.	0	16	34	3	16	23	3	0
Sept. 6, 1879.	8	16	35	0	14	14	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis, from Sept. 3d to Sept. 9th, inclusive, was 153, and the number of deaths that occurred was 62. The total number of cases for this year to Sept. 10th is 1095, and the total number of deaths, 332.

DR. CLEMENT A. FINLEY, Ex-Surgeon General of the United States Army, died at his residence in Philadelphia, Monday, Sept. 8th, in the eighty-second year of his age.

THE FOOCHOW OPIUM ASYLUM.—In the eighth report (1879) of the Foochow Medical Missionary Hospital can be found the first report of "the Opium Asylum," under the care of Dauphin W. Osgood, M.D.

The following are the most important and interesting portions of the report:

"Since the publication of the last Hospital Report, the Opium Asylum has been conducted as a separate establishment, and has been self-supporting. The number of patients treated has been five hundred and forty-four; of these, twenty-four absconded and the remainder were cured.

The plan of treatment consists in the total discontinuance of opium in any form from the time of entering the asylum, and in administering chloral hydrate and potassium bromide for the first three or four days as required. A pill consisting of extract of belladonna, gentian, valerian, quinine, and ginger, is given morning and evening. In addition to the above, various complications have to be met as they occur, such as diarrhoea and vomiting. In some cases stimulants are required, and in all, good food that is easily digested should be taken every three or four hours in small quantities.

In all, over 1,100 cases have been treated. As a majority of these cases have come under my personal supervision day after day, I hope that I shall not be accused of egotism or cant when I write that in my opinion the use of opium is an unmitigated curse. It is equally true that rich and poor alike suffer from the continued use of the drug. It causes anorexia, indigestion, constipation, a general loss of vitality, anemia, and in many cases difficulty in breathing. The confirmed smoker usually becomes impotent. His sallow skin, emaciated form, and languid step, tell the story. I am free to admit that there are cases where opium is used constantly for twenty or even thirty years in small quantities, with comparatively little injury to the user, but these cases are the exception and not the rule. It is also true that a given amount of opium smoked is less injurious than when swallowed. *I have never yet heard a heathen*

Chinaman defend the use or sale of opium, but on the contrary they universally condemn them. The only apologists for the use of opium have been representatives of Christian lands, many of which have had but little practical knowledge of the evil resulting from the use of opium. We append a table giving statistics of 1,000 opium patients, showing their occupation and the amount used, etc.

Farmers, 273; Literati, 83; Officials, 5; Shop-keepers, 304; Mechanics, 43; Buddhist priests, 2; Taoist priests, 3; Soldiers, 17; Carpenters, 23; Bamboo-workers, 16; Tailors, 22; Attendants in opium shops, 8; Brokers, 6; Doctors, 5; Miscellaneous, 190.

Number treated under twenty years of age.... 5

From twenty to thirty years of age..... 203

" thirty to forty " " 454

" forty to fifty " " 261

" fifty to sixty " " 68

" sixty to seventy " " 9

The number using from one candareen to one mace..... 51

From one mace to a mace and one-half..... 89

" one and one-half to two mace..... 187

" two to three mace..... 317

" three to four " 195

" four to five " 77

" five to six " 36

" six to seven " 16

" seven to eight " 5

" eight to nine " 8

One ounce..... 3

Fifteen eat opium instead of smoking it. The amount used ranged from five candareens to three mace of the prepared opium.

As some of our readers are not familiar with Chinese weights, we may say the ounce is divided into ten mace, and the mace is again divided into ten candareens. The ounce is equal to 38 grammes.

The above-mentioned quantities are of the extract of opium; each ounce of the extract is said to represent one and a half ounces of the crude opium.

Number who had used opium less than five years. 232

" " " from five to ten.... 311

" " " ten to fifteen..... 251

" " " fifteen to twenty... 94

" " " twenty years & more. 103

" " " thirty years..... 7

" " " thirty-five years.... 1

" " " forty years..... 1

Among the patients there was a Buddhist priest who smoked an ounce of opium daily. He remained about ten days, and at the time of his discharge said that he had no desire for opium.

Another case of interest was that of a military officer, a native of Hunan. He had used opium for more than twenty years, and at the time of entering the asylum was unable to attend to his duties. He had anorexia and constipation, was emaciated, and the slightest exertion caused difficulty in breathing. He had a severe time getting cured. For several days was unable to sit up in bed, but finally got over his desire for opium, and his general health was improving when he left. Before he left Foochow he presented a nice tablet to the Hospital, abounding in eulogistic sentiments."

THE RHODE ISLAND MEDICAL SOCIETY holds its quarterly meeting in Providence, Wednesday, Sept. 17th, beginning at 10 A.M. W. E. Anthony, Secretary.

THE NEW HAMPSHIRE MEDICAL SOCIETY holds its semi-annual meeting in the city of Hanover, Sept. 17th and 18th, 1879. G. P. Conn, of Concord, Secretary.

Original Lectures.

FIBROID TUMORS OF THE WOMB.

A CLINICAL LECTURE DELIVERED AT THE HOSPITAL
OF THE UNIVERSITY OF PENNSYLVANIA,

By WILLIAM GOODELL, A.M., M.D.,

PROFESSOR OF CLINICAL AND DIDACTIC GYNECOLOGY IN THE
MEDICAL DEPARTMENT.

Reported for the MEDICAL RECORD.

By the word polypus we mean a stalked tumor growing from the inside of the womb. A fibroid tumor is a tumor without a stalk, having its origin either on the surface or in the substance of the womb. A fibroid tumor growing on the peritoneal surface of the womb may have a pedicle, but in that case it would not be called a polypus. When a pedunculated tumor projects from the cavity of the womb, as is often the case, it is known as a polypus.

CASE I.—This patient that I shall bring before you is sterile. She has been married for a number of years. Soon after her marriage a very curious circumstance occurred. She fancied that she was in the family way, and, the hour of supposed confinement drawing nigh, a physician was summoned, but no child was born. The disappointment preyed considerably on her mind. We all know how great is the pride of maternity. Soon after she came to the Retreat, of which I have charge, for a child, and adopted one. I afterwards learned that she again went regularly to bed, sent for a female physician, who was in the secret, and was ostensibly delivered of this adopted child. This was done to save her wounded pride, for her relatives thought she would otherwise become insane. Unfortunately the child did not live long.

Last week the woman came to see me at the Retreat, saying that she had been flooding a great deal of late, and was rapidly growing fat. Why was she getting fat? The blood-corpuscles, as we know, are the oxygen-carriers, or consumers of the surplus fat of the body, and it stands to reason that, when their number is decreased by hemorrhage, the fat will accumulate. This fat is, of course, of a very low grade.

As the patient had not been in the hands of any physician, and as the existence of some foreign growth in the womb was suspected, I prepared the way for an examination by the introduction of some spongetents. These I removed in twenty-four hours, and filled their places by six new ones. The cervix is to-day sufficiently enlarged for me to introduce my finger with ease, and what do I find? The cavity of the womb is pretty well filled up by a large tumor. I succeed in grasping it with this instrument, and am bringing it out piecemeal. The growth cannot be a simple fibroid tumor; for it breaks down so readily under the traction that I fear microscopical examination may prove it to be a sarcoma.

Growths of this nature are very likely to lead physicians to false conclusions. The sound is introduced by the medical adviser, and, impinging upon the tumor, prevents him from obtaining the actual length of the womb, and he thinks no growth is there.

As I said a moment or so ago, I am very much afraid that this growth will prove to be a round-celled sarcoma. It breaks down entirely too easily for a simple fibroid, and there is no evidence of necrosis. A round-celled sarcoma is a tumor, without a capsule, feeling like placental tissue. It is a very rare growth

as originating in the womb. This is only the fourth case of the kind that has come under my observation.

I will now curette the wall of the womb, and see if some more fragments will not come away. Crumbling tumors are always dangerous. The round-celled sarcoma, in particular, is very malignant, almost always returning, and, in the end, destroying life. The sarcoma is not, however, so rapid in its course as the carcinoma. In this case there is no pedicle, the growth coming from a large uterine surface.

Once upon a time, many years ago, I was decoyed into a bad error of diagnosis. The case happened to be my first one. I was called to see a woman with a uterine tumor, which had been twice removed, but had as often returned. From this history I inferred that this return of the growth was owing to the fact that the tumor had not been entirely removed upon the previous occasions. I made a digital examination, and found some projecting body, which I made up my mind was a polypus. Upon endeavoring to remove it, this growth broke down so much that I had to use a curette. Subsequent events showed me that what seemed to be the polypus was a sarcoma, and that what I had imagined was the pedicle was tissue constringed by the os.

But to return to the present case. I feel a small remnant of the growth on the posterior wall of the womb. This I will not remove to-day. It is apparently, upon more careful examination, a second small fibroid about the size of a hickory-nut. All the other vestiges I have succeeded in scraping away. This small fibroid which is left is so slightly projecting that there is no chance of removing it.

I will have the fragments which have been scraped away carefully examined. If it turns out to be a round-celled sarcoma it is sure to return. I say, that this diseased growth always returns, and yet I have met with an apparent exception. Three years ago I was called by a friend to see a patient of his—a woman—the wife of a truck-farmer near Philadelphia, who, at the age of sixty-five, had begun again, as she thought, to see her courses. We made an examination, and found what we supposed to be a round-celled sarcoma, and removed it, but gave a bad prognosis. Strange to say, there has been no return of the growth and no subsequent hemorrhage. We took away some of the pieces, but lost them, and so have never since been able to substantiate our conclusion. We may have both been in error.

I am injecting this woman's womb with iodine. You can all see, I think, this eversion of the lining membrane of the cervix—the so-called "arbor vitæ."

These tumors, as they present themselves to the practitioner, may be generally divided into three classes, viz.: (1) those which, being extruded, occupy the vagina; (2) those lying partly in the vagina and partly in the womb, and which are not hard to remove; (3) those which, being intra-uterine, are difficult to remove.

If this proves to be a round-celled sarcoma I shall next week proceed to cauterize the womb where it is diseased, with pure nitric acid.

CASE II.—Here the growth is partly in the vagina and in the womb. It is very large. The woman is unmarried. Four years ago she began to lose a great deal of blood at her monthlies. This flooding was attended with a great deal of pain, which has been growing steadily from bad to worse, until she is now greatly reduced in health. You remember that I brought her before you last week, introduced my finger, and found the vagina filled with a large tumor. This tumor may possibly be an

inverted womb, but I think that I have made such a careful examination as to preclude such a possibility. The tumor is so large that I may be obliged to use as much force in delivering it as I would in bringing down the head of a child. In view of such an emergency, I have brought with me a crotchet and a cephalotribe. The rule which I follow in the case of all tumors of the womb is to get them away by hook or by crook, to get them away as a whole or in pieces. In some cases I have been obliged to take them away piecemeal, bringing down and cutting away as much as possible at each time.

I remember a case that occurred to me some twenty years ago, in which two weeks were consumed in the removal of a growth of similar character. We had no such thing as an *écraseur* at that time, so that we were obliged to do all our work with the long-handled scissors. The first day we cut off all that we could, fully expecting copious bleeding. Fortunately there was but little. (Velpéau holds that hemorrhage is rare in such cases.) On the fifth visit we were able to reach the pedicle and remove it. If we had had an *écraseur* we might have done the whole thing at one visit.

I bring down the tumor to the vulva, and enable you to see that it is very large. So large is it that I find it impossible by any means to reach the cavity of the womb. The tumor is very offensive. The womb runs up nearly to the level of the umbilicus. I shall probably have to incise the perineum in order to get the whole tumor away. The first thing to be done is to clean out the vagina with carbolic acid. This syringing gives vent to a very offensive discharge which has been all the while imprisoned in the vagina. The tumor has acted just like the head of the child preventing the escape of the waters. I am going to deodorize this putrid discharge, as well on the woman's account as on my own. Having done this, I first try to pass a sound. I am certain that the tumor is as large as a child's head at full term. By means of this volsella I am going to try to pull the tumor down and cut it off near its base; but this I find to be impossible: the volsella won't do. I then take the obstetrical crotchet provided with a hook, and see if I can budge it; but still it resists. I must cut the perineum, as I think that it is the perineum which stands in my way. I do this cautiously, as I wish to be very careful not to tear the rectum. I am going to make a lateral incision, or rather lateral incisions—one on the right, and one on the left. I may, after all, be forced to make a slight backward incision.

I ask my assistant now to push on the womb above while I try to bring down the tumor with the guarded crotchet. I find this instrument is slipping, so I hold on to what I have already brought down with the volsella, while I pass the crotchet higher up and get another hold. I am following the proper obstetrical rule, you see, in delivering in the plane of the superior and inferior straits. I support the perineum meanwhile by hooking my finger in the rectum. I now take a second volsella, and make traction by catching the tumor below. This brings us to the pedicle, and, before proceeding to enucleate, I wish to see if the womb is inverted. I have got to be very careful here too, for this is the dangerous part of the operation; for if the womb is at all inverted, it is very difficult often to decide which is the tumor and which the womb. This is no easy question to decide. At any rate, I think this is the line of demarcation between the two, and here I shall begin the process of enucleation. This is undoubtedly the tumor proper: I am going to enucleate it with my finger, so that I may get into the cavity of the peritoneum. After all,

you see that the tumor has no pedicle at all. I am digging the base of the tumor out of the wall of the womb, which I have inverted, and which my assistant, Dr. Taylor, is keeping inverted for me. There is always less bleeding if one is able to do this. You can see here the bands of adhesion running into the tumor which have fed and supplied it.

I am gradually getting it all away—yes, here it all is in my hand. It is unusually large. I should say that it was originally a fibroid starting in the wall, near the mucous membrane, and that it was gradually pushed out of the wall of the womb and into its cavity, thus gradually enucleating itself. Here is its capsule, and see how readily we can remove the growth proper by incising its capsule. If there is persistent bleeding, I will apply one part of Monsel's solution to three of water to the cavity of the womb by means of a sponge; but I do not like to put foreign bodies in the womb after such an operation. I am afraid that gangrene and necrosis would follow if I used the full strength of Monsel.

I will now proceed to put in my stitches. These are more than necessary on the lateral surface. The tear on the posterior surface is only through the skin and fourchette. The womb has been entirely reinverted. The posterior tear is the same one which we meet with in almost every first labor.

I am very anxious to see this case recover without any infection or any hemorrhage.

Why are we able to deliver the tumor in such a case? Simply because we are able to invert the womb and remove the growth by enucleation. If I could not enucleate by means of my fingers, I should use a serrated spoon, or cut a groove round the base with a pair of scissors.

Sometimes we experience great difficulty in delivering the tumor. In such instances, if I were unable to bring it down I should cut off all I could with the hot wire at each visit until I had finally brought it all away. As a general thing, if circumstances are favorable, it is best to do it all at one sitting, for a raw surface is constantly discharging, and there is constant danger of blood-poisoning.

If you find a tumor occupying the cavity of the womb and cannot bring it down, how are you to act? (1) Try to twist off the pedicle. The volsella forceps is of no use in this connection, (a) because its hooks project; (b) because it has to be opened so wide that it cannot be passed far up; and (c) because it tears away when you have succeeded in catching the growth. The best instrument for this purpose is the fenestrated polypus forceps. This can be slipped into the womb and the tumor caught at hap-hazard. You catch hold of the tumor just as the surgeon seizes the stone in the bladder. (2) If you cannot twist off the growth, then adopt the plan of Dr. Kidd, of Dublin, by which you can never fail to remove a tumor. This is it: Catch hold of the anterior lip of the cervix with the volsella, and hand it to your assistant to hold; then get, yourself, a good hold of the presenting end of the tumor with a pair of volsella or polypus forceps: all you want is a good hold. Transfer this also to an assistant. Now slip the wire of the *écraseur* over this last volsella until you get to the os. Just here let me show you a wrinkle. You would naturally say, pass the wire up first. But not so: push up the tip of the *écraseur* first, and then coax the wire after, your assistant keeping up traction all the while, till it has passed above the equator of the polypus; it will then slip up to the root.

(This tumor is very large, but not so large as one which I enucleated six weeks ago.)

There is always a good deal of danger of cutting off a portion of the womb in performing this operation. So, after you have got the wire well up, push up the end of the écraseur until it meets with such resistance that it can go no further. In that way you restore the cup-shaped depression of the womb, and can tighten the wire with impunity.

The German physicians are the ones who recommend the lateral incisions where there is danger of the perineum being torn. These incisions must be sewed up immediately after the operation, otherwise they take a long time in healing. Braun, of Vienna—who is attending accoucheur to the Joseph Hospital in that city, where 6,000 women are delivered in a year, and who has consequently attended more labors than any other living man—lays it down as a rule always to make incisions where forceps are employed. This, I think, is a mistake; I say, always take the forceps off when the perineum begins to bulge.

If this woman should fall into the hands of a physician and tell him that she is a virgin, he would not believe her, for he would find all the evidences of a pretty severe labor.

I am sorry I did not stop the bleeding in this case by the use of ice, instead of employing Monsel's solution, for I fear that it may prevent the incisions made in the perineum from healing by the first intention.

The after-treatment will consist in binding the woman's legs together at the knees and keeping her quiet. If any symptom of septicæmia should arise, we shall give full doses of quinia.

Original Communications.

REPORT OF TWO CASES OF EXCISION OF THE RECTUM, WITH REMARKS.

By A. VAN DERVEER, M.D.,

PROFESSOR PRINCIPLES AND PRACTICE OF SURGERY IN ALBANY MEDICAL COLLEGE; ATTENDING SURGEON AT ALBANY AND ST. PETER'S HOSPITALS, ETC.

(Abstract of paper read at the Semi-monthly Meeting, Albany County Medical Society.)

THAT excision of the rectum is not a very difficult operation has been shown by the success of several operators. Billroth is said to have performed it sixteen times, twelve of his cases making good recoveries.

Among the first to do the operation in this section was the late Dr. March, who operated upon a female patient in 1868. She made a good recovery, living for eighteen months, and then died from a rapid return of the cancerous disease.

Dr. John B. Roberts, of Philadelphia, has contributed a valuable paper on this subject.

Of ten cases reported as operated on in this country, four are known to have died. One died seven months after operation, of what was said to be consumption; one was living sixteen months after the excision; of one, the termination is not known, and three are cured.

In a report by Schmidt, of Leipsic, out of thirty-three cases, twenty are reported cured.

CASE I.—Removal of lower portion of rectum for villous form of carcinoma about the anus.—Mrs. W—, aged forty, married, and the mother of four children. She has always been in fair health, and presents a good family record. In the spring of 1877, her youngest child being three years old and her men-

struation regular, she noticed an irritation about the anus, which gave her great annoyance, and at times pain. Her bowels became more constipated than usual, and she had some distress in passing urine. By June 1st she noticed a growth about the opening of the bowel, which she at the time believed to be piles, and accordingly consulted a specialist in this city for the treatment of that disease. She was now suffering much pain and itching, and was frequently compelled to take anodynes in order to get rest at night. The movement of her bowels she very much dreaded, as it gave her increased pain and distress. There was a constant moisture about the anus and perineum. The discharge was offensive, being ichorous in character, and producing an eruption about the skin of the gluteal regions.

The treatment she received gave her but little relief, and on Sept. 20, 1877, I was consulted. She now presented a pale, anxious expression of countenance, was in constant pain, her bowels being at times in a condition of diarrhœa; again they were costive, giving her greater pain. There was a loss of appetite and flesh. Her urine was in a healthy state—very little leucorrhœa. The uterus and organs of the pelvis were all in a healthy condition. No induration or inflammation of the deep or superficial inguinal glands. About the anus was a warty-like growth, looking as much like a small sun-flower as anything to which I can compare it. It extended for an inch about the anus on each side, and somewhat farther back towards the coccyx than forward on the perineum. In places the growth was ulcerated, bleeding somewhat easily upon touching. It extended posteriorly about two inches up the rectum, its boundary being well defined. The examination, made without giving an anæsthetic, gave her much pain.

Her menstrual periods were normal, and, as she expected her monthly sickness in two or three days, an operation was advised to be done as soon as she was well over it. This was readily assented to by herself and husband, her words being: "I cannot live long in this condition." She was given quinine quite promptly, and her rectum washed out each day by an injection of tepid water. Two doses of castor oil were also given. Oct. 1st, her menstruation having ceased two days previously, assisted by Drs. Snow, Perry, and my medical student, Mr. Worden, I proceeded to do the operation of excision of the rectum. Ether was given by Dr. Perry, and the patient was placed in the position for lithotomy. With the scalpel I made an elliptical incision, beginning in front of the anus, and then around on each side backward to the coccyx. With serrated scissors I continued the dissection, keeping my finger well in the vagina to protect, as much as possible, the recto-vaginal septum. The bleeding vessels were controlled by the use of Wells's artery clamp, and the time occupied in completing the removal of the diseased mass was about fifteen minutes. Ligatures were applied to eight bleeding arteries.

On careful examination, it was found we had removed more than two inches of the rectum posteriorly and only about an inch in front—in fact, at the latter point, there was evidently a part of the external sphincter muscle left, but the disease was believed to be thoroughly removed. The rectum was now brought down, and by ten stitches attached to the cutaneous surface. After this the oozing of venous blood entirely ceased. Cloths dipped in a weak solution of carbolic acid were applied, and the patient placed in bed. The shock was somewhat marked, the operation having lasted nearly an hour. She rallied from

the effects of the ether quite rapidly. Her urine was drawn in the evening by catheter, and by the aid of $\frac{1}{2}$ gr. morphine she passed a comfortable night. Temperature 6 p.m., 101; pulse, 108. The next day after the operation she expressed herself as feeling very comfortable, none of the old pain or irritation remaining. This patient made such an uninterrupted and successful recovery, that it is hardly necessary to give her daily record. Her temperature was never above 102, and that was for one day only. One point of interest in the case was, that all the stitches gave way between the third and fourth day. The ligatures were all away by the eighth day, the suppuration being quite free. The parts, however, were kept in good condition by frequent washing with carbolized water. No tendency to burrowing of pus. The quinine was continued for two weeks. On the tenth day, the bowels were moved by castor oil and injections, giving her considerable pain and causing some bleeding. The catheter was not used after the second day. At the end of the second week after the operation, the patient was put upon a mixture of liquor pernitrate of iron and Fowler's solution, and this was continued for eight months, when her color and general appearance were that of perfect health. Since the healing of the parts, she has had more or less trouble in getting her bowels to move. There has been very little tendency to diarrhoea, but the contraction about the anus is very decided, so that, in the three examinations I have since made, I could hardly introduce my little finger without giving pain to the patient.

At first, to relieve the constipation, I gave the patient Lady Webster dinner pills, and advised the daily use of the rectal bougie. The former, however, seemed to give griping pain, or, as she expressed it, "too urgent a desire for an evacuation," while the latter was too troublesome to use for any length of time. For the past six months she has succeeded nicely in moving her bowels by the use of an enema.

At the present time, May 1, 1879, she seems in excellent health, and is free from all pain or irritation about the parts. Microscopic examination of the growth at the time of its removal showed it to be a papilliform form of carcinoma.

CASE II.—*Epithelioma of rectum—Three inches removed.*—In Feb., 1878, my friend Dr. Roscoe, of Carlisle, N. Y., brought to my office Mr. Wm. Becker, to be examined in reference to the condition of his rectum. Mr. B. gave the following history: He was a farmer, aged 58, married, and has three children, all grown and in good health. About nine years ago he first noticed his trouble, which he believed to be piles. He was treated by external applications, at times being worse, and then better, until three years since, when he had an abscess, which discharged quite freely. From that time the itching, irritation, and moisture of the parts have increased, being accompanied by sharp, lancinating pains; also at times by violent burning pains, which the patient very vividly describes. At times he would be troubled by diarrhoea; his pain, however seemed greater when the bowels were constipated. He frequently experienced also a sensation, caused apparently by the presence of something in the lower bowel, and which he felt he must force out.

On examining the parts, I found, just within the muco-cutaneous border, an ulcerated mass extending up on the right side as far as my finger could reach. The glands in the inguinal region, however, as well as the bladder and prostate, seemed in a healthy condition. He presented a somewhat cachectic appear-

ance, loss of appetite, emaciation, etc. I advised an operation for the removal of the lower portion of the bowel, to which he readily consented. Accordingly, at his home, March 8, 1878, assisted by Drs. Roscoe, Perry, and Lowell, I did about the same operation as in Case I.

Having the catheter in the bladder, I made a complete dissection and removal of the rectum, to the extent of three inches on the right side and about two on the left. I did not, however, as in the preceding case, attempt to stitch the bowel to the skin; but, after securing the vessels, which were quite numerous, I placed a drainage-tube in the wound, applied a pad of absorbent cotton, and held all in place by a T-bandage. The cotton was removed on the second day, after which the wound was kept clean by the use of carbolized water. He made a good recovery, the ligatures being allowed to come away of themselves. Since last May he has had very good control of his bowels, though when the desire comes to go to stool he must respond at once, or there will be a partially involuntary escape of feces. He has improved very much in health, and is free from all pain and irritation.

March 8, 1879.—Dr. Roscoe visited my office, and stated that, during the previous month, Mr. B. had noticed an enlargement in his left groin, which was hard and somewhat painful, but free from adhesions. This looks like a return of the disease, though in every other respect he seems well.

This patient took, for a long time after the operation, the mixture of pernitrate of iron and Fowler's solution, with seemingly good effect.

May 1, 1879. Mr. B. seems in excellent health, and is worried only by the indurated superficial inguinal gland in the left groin. About the rectum the parts present a healthy appearance.

I have reported these two cases, the only ones in which I have operated, not so much on account of their success, as the desire I have to add to the statistics of the operation, believing that time will demonstrate that it lies in the power of surgery to do more for these unfortunate patients than has hitherto been thought possible by many good and wise surgeons.

At the present time, while there are many favorable cases reported, yet the operation is considered as a palliative one merely. The period of immunity after operation cannot be determined. The conditions which seem to justify the operation, and which are emphasized in many of our late works on surgery, were well exhibited in my two cases—namely, the disease being epithelial in its character, limited to the walls of the intestines, not implicating the peritoneum, and the health of the patient not too seriously impaired. The fact that the greatest amount of the disease was situated toward the coccyx, made these two cases exceptionally favorable for the operation. I desire to call attention to the excellent use that can be made of the curved serrated scissors in doing this operation. It seems to me the immediate bleeding is not near so great, and that a good deal of the usual sponging is avoided.

I think there is much yet to be considered regarding the use of sutures. The principal causes of death in this operation have been pyæmia, pelvic cellulitis, and peritonitis. With this knowledge in our possession, is it not safe to do away entirely with sutures, give free exit to the wound by the aid of drainage-tube and frequent washing out, keeping the parts in an antiseptic condition, and avoid the possible danger there is in the sutures, closing the parts in such a

manner as to cause the pus to be retained, and thus most certainly produce some of the results that are known to prove fatal? I should like a fair, candid expression from the surgeons who have done this operation, as to how much service the sutures have been in holding the rectum down to the cutaneous surface, and whether if, in the majority of cases, they have not torn out before primary union could possibly occur.

DIPHTHERIA.

BY JOHN H. GILMAN, M.D.,

OF LOWELL, MASS.

(Read before the Massachusetts Medical Society.)

GENTLEMEN OF THE MASSACHUSETTS MEDICAL SOCIETY:—In responding to the invitation of your committee to read a paper at this meeting, I have ventured to select diphtheria as my subject, because the disease has lately prevailed in an epidemic form in Lowell and its vicinity. In writing upon diphtheria I do not expect to be able to offer much that is new or original, but shall, at first, give a general account of the disease, then make some observations regarding its nature, and lastly, give what experience has suggested respecting its treatment.

Dr. Aitken, in his great work on the Science and Practice of Medicine (6th ed., 1872), defines diphtheria as "A specific disease with membranous exudation on a mucous surface, generally of the mouth, fauces, and air-passages, or occasionally on a wound. The disease is attended with great prostration of vital powers. In some cases a remarkable series of nervous phenomena are apt to supervene, characterized by progressive paralysis and sometimes by fatal syncope. The disease is contagious and apt to become epidemic."

Although the name diphtheria is a modern invention of Bretonneau, the disease which we now recognize by that appropriate designation has existed under different names for centuries, if not from all antiquity; and although the Greek and Roman writers have not described its features with sufficient distinctness, its epidemics have been clearly indicated by Spanish, Italian, French, German, Swedish, British and American authors from the end of the sixteenth century to the present time. The earliest account of an epidemic that was undoubtedly diphtheria, which I have been able to find, is one which broke out in Holland in 1517. (Guy on Public Health.) It is described as an infectious inflammation of the throat, which often caused death in twenty-four hours. Those who ultimately got well recovered slowly. The disease soon passed away, but it spread beyond the limits of Holland, and certainly to Basle in Switzerland, where in the space of eight months it killed 2,000 people. Here its symptoms appear to have been better described, for we learn that the "tongue and throat were white as if covered with a mould," and part of the treatment consisted in removing this "viscous white coating" before applying remedies. Dr. John Starr, in 1749, describes, under the name of morbus strangulatorius, a disease which he says "has reigned within a few years in several parts of Cornwall with great severity." In his description we recognize diphtheria. He speaks of a "white body seen on the palate and tonsils," and gives a woodcut of a membranous cast of the larynx, trachea, and primary bronchi, which was expectorated by one of his patients. He speaks of the formation of a white membrane on a blistered cutaneous surface. Dr. Huxham, in his dissertation on Malignant Ulcerous Sore Throat (8d

ed., 1759), evidently confounds together the two diseases, scarlet-fever and diphtheria. We recognize diphtheria in his description of "ash-colored spots on the tonsils, uvula, palate and pharynx," and in the noisy breathing "resulting from extension of the disease to the windpipe." He speaks of the "discharge from the nostrils as being so acrid that it excoriated the lips and hands of the patients," showing the extension of the disease to the nasal cavity. In 1765 Dr. Home published his treatise on the Nature, Cause and Treatment of Croup. He was the first to describe a membrane lining the air-passages as the essential anatomical character of croup. A careful study of his cases shows that under the name of croup he included two different diseases—simple laryngitis and diphtheria. Dr. Samuel Bard, in 1771, published an admirable description of diphtheria under the title of Angina Suffocativa, or Sore Throat Distemper, as it appeared in New York. He speaks of a "membrane on the tonsils" as being frequently, but not invariably, present. He describes the formation of a membrane on the abraded skin; and he recognizes the infectiousness of the disease, but rather "from the breath of the infected person" than "from any prevailing disposition of the air." And this, he says, explains the fact that a whole family may suffer from the disease, while the next-door neighbors escape. He speaks of one family in which seven cases occurred, three of which were fatal. Cullen, in his First Lines of the Practice of Physic (4th ed., 1784), under the head of Cynanche Maligna evidently includes scarlatina anginosa, and diphtheria. The latter is indicated by the appearance of white or ash-colored spots on the fauces. Mr. Henry Rumsey, in Account of Croup as it appeared in the Town of Chesham in Buckinghamshire in 1793-94, says that "frequently large films of white substance were formed on the tonsils," and describes a film or membranous substance lining the windpipe. Dr. Cheyne, in his treatise on the Pathology of the Membrane of the Larynx and Bronchi, published in 1809, says: "I have seen children so affected that I at first imagined they were suffering from the second stage of croup, but upon examination I discovered 'sloughs on the tonsils and uvula.'" The cough, voice, and breathing were those of the second stage of croup. He doubts whether these were cases of "true croup," but it can scarcely be doubted now that they were cases of diphtheria. Dr. Wade, in a communication to the *British Medical Journal* in 1875, gives the following quotations from an old author, showing that the existence of symptoms which we now recognize as diphtheritic paralysis was noted. They are extracted from a book entitled: An Historical Dissertation on a Particular Species of Gangrenous Sore Throat, which reigned Last Year among the Young Children at Paris. Translated from the French of Dr. Chomel (printed at Paris in 1749) by N. Torriano, M.D., London, 1753. "Miss Blossac, aged six and a half years. . . . The patient did not seem to be quite out of danger till the forty-fifth day of the disease, having always a pain in expressing herself, speaking through her nose by reason of the fallen palate. She was given, in order to lessen the disagreeable speaking through her nose, a little camphorated brandy, with equal parts of warm water to draw up her nose, for two months together, and she used the remedy with pleasure. Miss Bonac was taken ill of the disease and cured. . . . I have since learned that this patient after the fortieth day of the disease spoke much through her nose, became squint-eyed and deformed, but that as she grew stronger she also regained day by day her natural

state." The writer says "the patients are a long time weak and languid." To Bretonneau, however, belongs the honor of having clearly elucidated the distinctive characteristics of the affection. In 1831, 1825 and 1826, the disease having broken out and prevailed as an epidemic at Tours in France, Bretonneau, with his pupils Velpeau and Trousseau, studied it carefully and found a remarkable uniformity in its symptoms and post-mortem appearances, and from the constant presence of a false membrane called it diphtheria.

The characteristic feature of diphtheria, as already stated, is the presence of a false membrane situated upon the fauces. At the outset of the disease there is redness of the fauces, with more or less swelling of one or both tonsils. The exudation usually first appears upon one of the tonsils; but the diphtheritic formation may begin in the nares, pharynx, or larynx, on the palatine arches, uvula, and the posterior surface of the soft palate. At first the false membrane is thin, but may become more or less thick and opaque; it is white or ash-colored, but may become dark, and when unusually thick it resembles parchment or chamois leather. Sometimes the exudation is thin and soft, and sometimes it is tough and elastic, and an eighth of an inch in thickness. Different cases differ in the extent of the exudation; one or both tonsils may alone be affected, and from this primary seat the false membrane may extend over the pharynx, soft palate, hard palate, palatine arches, and uvula; into the nares, larynx, trachea, bronchi, œsophagus, and even into the stomach. It may be uniformly diffused in these situations, but it is oftener in irregular patches. The diphtheritic growth generally penetrates beneath the epithelium of the mucous membrane into the submucous tissue, coming into close contact with the blood-vessels, and, if detached, a raw, bleeding surface is exposed, which is soon covered with a new layer of false membrane.

Sooner or later the false membrane is thrown off, but the exfoliation is not infrequently followed by a second, third, and even fourth formation of false membrane. Decomposition of the exudation often takes place rapidly, and hence arises the fetid effluvia exhaled from the mouth of the patient. The glands to which the lymphatics of the pharynx lead are found to be larger than natural, and such an enlargement of the glands is in just proportion to the extent and severity of the local disease within the throat. If the local disease is limited to one side, the glandular enlargement occurs on the same side, and in severe cases not only do the glands behind the angles of the jaw enlarge, but the connective tissue in which they are situated is often the seat of serous effusion, and even of the exudation of lymph, so that great swelling occurs, which sometimes results in suppuration. According to Dr. Niemeyer, the diphtheritic and croupous false membrane is composed of fibro-albuminous material, which rapidly coagulates when thrown out upon the free surface of a mucous membrane. By some authorities it is considered to be a peculiar exudation, which, forming a favorable nidus for fungi, is often the seat of cryptogamic growth. Others maintain that the fibrinous material is poured out only in consequence of the irritation set up by a parasitic formation ramifying between the epithelial layers of the mucous membrane. Microscopically it is seen that pus, granular corpuscles, oleo-protein granules and epithelium constitute the bulk of the softer forms of diphtheritic exudation, while fibrin mixed with corpuscles constitute the bulk of the tougher varieties. The microscope often reveals the

presence of fungoid vegetation in the pellicle diphtheria, and some observers have asserted that a parasitic growth is always present in the false membrane of this disease.

The invasion of diphtheria is sometimes attended with symptoms so mild as scarcely to attract attention until the local disease has made considerable progress. No pain is felt in swallowing, no febrile excitement is present, and only a trifling soreness or roughness is experienced in the throat. Other cases begin with feelings of depression and general malaise, attended with chills, fever, headache, sore throat, stiffness of the neck, and more or less pain in deglutition, and sometimes an attack is ushered in by convulsions.

The *primary nasal form* commences like a cold in the head, or the snuffles, the patient is unable to respire through the nostrils; from which there takes place a serous, yellowish, flocculent or bloody discharge, often very fetid, and which produces more or less excoriation of the external nasal openings and of the upper lip. This form is apt to be overlooked until symptoms of exhaustion supervene, or of the extension of the disease to the fauces or larynx.

In the *primary laryngeal form* the disease begins with painful deglutition, attended with redness and swelling of the mucous membrane of the fauces and noisy respiration. The exudation may be often seen on the arches of the palate, being more abundant at the base of the arch, looking as if it had spread from the larynx. Croupal symptoms rapidly supervene, and death threatens from apnoea.

MEMBRANOUS CROUP IS DIPHTHERIA.

I believe membranous croup and diphtheria to be identical. On reviewing, lately, the prevailing opinions of the leading members of our profession, it appears they are daily more and more adopting the dogma of Bretonneau and Trousseau, that all membranous croup is dependent on the specific contagium of diphtheria. It is, then, unquestionable that in the vast majority, if not in all cases, a membranous exudation in the air-passages is the specific product of diphtheria. The absence of exudation on the fauces does not prove the croup to be non-diphtheritic; for the diphtheritic formation may begin in the larynx, or, what is more common, the membranous exudation, which first occurred on the fauces, may become detached therefrom while the disease is extending downward into the air-passages, so that on inspecting the throat no exudation is observed. It is admitted by the best authorities that the morbid anatomy of membranous croup is identical with that of diphtheria.

The sequelæ of diphtheria form an important part of its history. Anæmia and general debility are apt to persist for a considerable time. Feebleness of the action of the heart sometimes exists to such a degree as to lead to sudden death by syncope, which is due in some cases to a paralyzed condition of the heart, and, in others, to the deposition of fibrin in the heart or great vessels. Paralysis is a characteristic sequel, the muscles of the soft palate and pharynx are oftenest affected; the paralysis here precedes its occurrence elsewhere, and is denoted by the nasal sound of the voice, difficulty of swallowing, and the regurgitation of liquids through the nostrils. Paralysis of the limbs is gradually developed, and is preceded by tingling, numbness, and a sensation of coldness; but sometimes the sensibility of particular parts of the affected limbs is morbidly increased, so that the lightest touch causes great distress. Paralysis of the external recti muscles sometimes occurs, resulting in

converging squint. The senses of sight, taste, smell and hearing are sometimes affected. Concerning the pathology of diphtheritic paralysis there are several theories. Dr. Morrelli, in his essay on Diphtheritic Paralysis, as observed in Florence from 1861 to 1864, gives some dissections in which lesions were found in the spinal cord and nerves. He remarks that the changes found after death are inadequate to explain the various forms of diphtheritic paralysis, and leave it an open question whether the pathogenesis of this affection be not entirely due to the morbid causes of diphtheria, and whether the paralysis does not proceed from the periphery to the nervous centres. Other Italian and German physicians have described autopsies in which they have found a disseminated myelitis in the medulla and spinal cord. Two recent observers, M. Charcot and M. Vulpian, are of the opinion that diphtheritic paralysis is due to the periphery rather than to changes in the nervous centres; that it is, in fact, an extending neuritis or inflammatory process propagated from the muscular surfaces and nerve extremities, which produce abolition of their functions. They have shown that the normal condition of the palatine nerve is altered; that the nerve tubules are devoid of myeline, and granulations are seen to exist in the neurilemma.

Diphtheria is classed among the zymotic diseases. It is a contagious disease, and is apt to become epidemic. Examples of persons becoming affected, after having been brought in close contact with the disease, are numerous. But it sometimes occurs sporadically, and shows no disposition to spread from the sick to the healthy. In what manner the specific contagium or poison of diphtheria is generated has not yet been solved; filth, sewer and cesspool gases, defective drainage, dampness arising from soil moisture, or rather a damp atmosphere charged with the fungi of decomposition, are said to give rise to the disease. A German author, Dr. Letzerich, says "that it is undoubtedly deduced that epidemic diphtheria is caused by a fungus whose spores can carry the disease to other individuals; that diphtheritic inflammation depends upon the local effects of cryptogamic productions, and that clinical experience shows that the false membrane may be prevented if the spores and sporules are destroyed by topical applications." Once originated from any cause or combination of causes, it may be communicated by the sick to the healthy.

I regard diphtheria in its incipient stage as a local disease, and the early constitutional symptoms that sometimes occur, as due to the irritation caused by the growth on the mucous membrane, and the ramification beneath its epithelium, of the diphtheritic formation, and I regard the subsequent infection of the system and constitutional disease as resulting from the absorption from the throat or other seat of the false membrane, of the poison, and of putrescent matters arising from the interstitial death of the mucous tissue invaded, and from the decomposition of the false membrane. *We cannot too forcibly impress upon the public that the severity and mortality of the disease can be controlled if it is brought early under treatment.* If this fact was generally known and heeded, we could regard the disease as one of the most trivial of throat affections, with here and there a grave exception. Diphtheria is often masked for a time by symptoms of other diseases, so that when diphtheria is prevalent it is expedient to look into the throat of the patient in all cases of illness, as occasionally, when there is not even ground for suspicion, the characteristic spot or film of false membrane can be observed. What is the first stage of diphtheria? That in which the germs

of the disease have lodged on a surface which provides a favorable soil for their development. The locality which is chosen by the contagium particles of diphtheria is usually the throat, generally one of the tonsils, where they begin to multiply and spread over the adjoining mucous surface, like mould on a raspberry jam. The disease has not yet impregnated the constitution with its baneful influence; perchance the pulse is not quickened; the temperature is not raised, and the tongue is not furred. Now is the time when a speedy cure can be effected by local treatment, when a single topical application will often effectually destroy the parasitic growth, and the patient is rescued. Contrast this with the disease not seen until it has been some three or four days established, the poisonous matter from the film has been absorbed by the lymphatics, as indicated by the hardening and swelling of the neighboring glands, the false membrane has spread more or less over the fauces and into the nasal cavity, perhaps entering the larynx, when recovery can scarcely be looked for; the pulse rapid, the temperature exalted, nerve prostration extreme, the blood badly or hopelessly poisoned, and protracted illness or death imminent.

In the treatment of the first stage of diphtheria I formerly applied to the false membrane lunar caustic or a strong solution of the nitrate of silver; but lately I have used, as a local application, the following preparation: R.—Acidi carbolici, 15 drops; tinct. ferri chloridi, 4 drachms; aquæ, 4 drachms. M. This solution, by its astringent and antiseptic properties, tans or hardens the fibres and coagulates the fluids of the false membrane, thereby arresting its growth and preventing the occurrence of putrefactive changes therein. It should be applied to the false membrane *once*, rarely twice, daily, with a small probang which has been moistened with water and pressed out just before being dipped in the solution. Some physicians experience considerable difficulty in making topical applications to the throat of children, but if they adopt the following procedure they will easily succeed: The mother, sitting, should take the child in her *right arm* and hold its hands; another person standing behind the child should hold its head, while the doctor should depress the tongue with a spatula or spoon-handle, held in his left hand, and with his right apply the probang, dipped in the solution, to the throat; after one application has been made the probang should be rinsed in water, cleaned of the attached mucus, dipped again in the solution, and re-applied; this repetition is necessary, so that the solution may come in direct contact with, and thoroughly permeate the false membrane. This operation should not be performed oftener than *once* or twice in the twenty-four hours, as strong local applications are apt to do harm when too frequently repeated. One application thoroughly made as directed, in the incipient stage of diphtheria, will oftentimes arrest the disease, causing the general symptoms to subside in a short time, and the false membrane to shrivel and disappear within twenty-four hours. While the local applications are being made the following prescription may be administered: R.—Potassii chloratis, 1½ drachms; aquæ, 4 ounces; acidi muriatici, 10 drops. M. Take a teaspoonful every hour during the day, and continue its use a few days after the false membrane has disappeared from the throat.

In the *next stage*, when the constitution has become impregnated with the diphtheritic poison, the false membrane will reappear if it is destroyed; so that local applications, though beneficial, cannot be relied upon to arrest the disease, which should now be chiefly

treated by the administration of tonics, antiseptics, stimulants, and a nourishing diet. An excellent prescription containing tonic and antiseptic qualities, and the one which I generally give, is the following: *R.*—Potassii chloratis, 1½ drachm; aquæ, 4 ounces; tinct. ferri chloridi, ½ to 1 drachm; quiniæ sulphatis, 2 to 5 grains. *M.* Take a teaspoonful every hour during the day, and continue its use one or two weeks after the local disease has disappeared. Water should not be taken for at least five minutes after each dose of the medicine, so that it may have time for local effect on the fauces. When there is much fetor exhaled from the fauces, the mouth may be occasionally rinsed, and the throat gargled or sprayed, with the liquor sodæ chlorinatæ, 5 to 20 drops to the ounce of water, or with aqua chlorinii, 5 to 15 drops to the ounce of water. Stimulants are required in this stage, the best being sherry wine diluted with an equal quantity of water, and the amount given should be in proportion to gravity of the disease and to the age of the patient. A liquid diet only should be allowed, consisting of milk, beef essence, beef tea, porridge, gruel, soup, etc., until convalescence begins, when a more substantial diet may be partaken of. In the nasal form, when the discharges are offensive, the nostrils should be carefully syringed out with potassii permanganas, 1 to 2 grains to the ounce of water; but if there be hemorrhage, the tinct. ferri chloridi, 5 to 10 drops to the ounce of water, may be used.

In the primary laryngeal form, or when the disease is entering, or has extended into the larynx, the following, vaporized by the steam atomizer, may be almost constantly inhaled for the purpose of effecting the solution of the false membrane: *R.*—Aquæ calcis, 4 ounces; acidi carbolic, 10 drops. *M.* Tracheotomy should be performed when other means have failed, and, according to Prof. George Buchanan of Glasgow, the operation yields as successful results in diphtheria as it does in membranous croup. In 1875 he published the whole number of his operations, which was 46: for croup, 16—cured, 6; died, 10; for diphtheria, 30—cured, 11; died, 19. The average result is precisely the same, viz.: one out of every two and two-thirds is saved.

In the paralysis resulting from diphtheria, no special treatment is required in most cases, but in the exceptional instances in which the paralysis persists a cure may be generally effected by the use of electricity, the subcutaneous injection, or the internal administration of strychnine, and an eligible formula is as follows: *R.*—Strychniæ sulphatis, 1 grain; aquæ, 1 ounce; tinct. ferri chloridi, ½ drachm; syrupi zingiberis, 3 ounces. *M.* Dose for adults, one teaspoonful; for children one to three years old, five to ten drops, thrice daily.

OPHTHALMIA NEONATORUM.

By WILLIAM OLIVER MOORE, M.D.,

ASSISTANT-SURGEON NEW YORK EYE AND EAR INFIRMARY, ETC.

THIS disease is one of the most terrible and destructive that can affect the eyes of the new-born. Fully one-half of the inmates in our blind asylums had this disease when only a few days old, and have suffered a lifetime in consequence. Scarce a day passes but we see presented at the various eye hospitals the sad picture of a helpless infant, frequently only ten days old, sometimes younger, in whom this disease has made sad havoc, one or both eyes being totally destroyed.

The question naturally arises, has science no means at her command to combat this disease? Most assuredly.

The disastrous results so frequently seen are not from lack of means, but from the lack of applying sure and safe remedies to the unfortunate patient.

It is a disgrace to the medical profession that so many children annually become blind from this disease, owing to utter ignorance of the first principles of medicine.

The dullest practitioner, if called to see a case in which a discharge of pus so profuse as that coming from ophthalmia neonatorum, would, if in any other part of the body, immediately institute means to allay and check it, and would not for a moment advise "breast-milk" as a lotion. Yet good general practitioners, when called to see this disease, sit quietly by, and with folded hands say, "It is quite common, and of no consequence," a matter of "only a few days;" meanwhile the eyes are being rapidly destroyed, and the innocent victim is to reap a lifetime of sorrow for the indifference of the family physician.

Of five hundred cases treated at the New York Eye and Ear Infirmary during the past ten years, only fifty were delivered by midwives; the others were under the charge of practitioners of medicine. Thus, in the majority of cases, the neglect can be traced to the physician in attendance.

The more astonishing is the fact, as this disease usually makes its appearance during the first ten days of life, when, as a rule, the accoucheur is daily visiting the mother.

Not until the mass of the profession realize the importance of energetic and thorough treatment, will we cease to see the awful results now so common.

We are required by the Board of Health to report scarlatina and the like, which can but produce, at the worst, death; while with this disease hundreds yearly are made to live a life of darkness from want of proper treatment—a burden not only to themselves, but also to the State.

We would almost urge the reporting of every case of ophthalmia neonatorum to the Sanitary Bureau, that it might be investigated and have proper treatment. This would be of service, as all physicians diagnose the disease, though they are so indifferent as to its treatment.

Some will probably think this visionary and wild; but those who visit our special institutions will see the truth of the matter. I would not be understood that the specialist is the only one fitted to treat such cases.

The most frequent cause is improper cleansing of the child's eyes and face immediately after delivery, or from using, in bathing the child, a soiled towel or sponge containing poisonous matter from the mother.

Great care should be exercised in having a trusty and tidy nurse. Exposure to strong sunlight, which is indulged in by too many, is another cause; as is also cold, causing a catarrhal inflammation in delicate infants, rapidly degenerating into a purulent form.

The disease generally makes its appearance during the first three days of life, when either one or both begin to show slight redness of the edges of the lids, and some injection of the ocular conjunctiva, together with undue moisture of the parts. The tissues of the lid being very lax in the infant, oedema of the lid soon manifests itself, especially in the upper, which has a red, and in many cases a purple hue. This swelling of the lids entirely shuts the eye from view. The discharge, which at first was only small in amount, and mucous, has by this time become very profuse and purulent. Frequently the purulent secretion

runs down over the cheeks, especially from the inner canthi. The edges of the lids become agglutinated, and, when forcibly separated, the pent-up purulent matter gushes out.

This confined material is a potent element in causing the destruction of the cornea, which so frequently happens where thorough washing is not practised.

The child, in crying, will often evert the upper lid, owing to the great swelling and to the contraction of the orbicular muscle. This point is a help in the treatment, as it greatly assists when making the application to the lid. The palpebral conjunctiva will be found intensely injected over its entire surface, and especially inflamed and swollen at the retro-tarsal fold.

On examining the cornea we find diffuse or circumscribed haziness, or, in the more severe cases, deep sloughs. This necrosis usually causes destruction of the entire thickness of the cornea, allowing thereby prolapse of the iris, in some even escape of the crystalline lens.

A case is on record where the mother brought in a wine-glass both lenses of her child to the physician.

Sometimes one-half, and at others the whole cornea is destroyed, according to the severity of the disease. The discharge and swelling will last for weeks when no active treatment is adopted, when at length the eyes are either sightless or very much impaired.

Such is the history of a case without treatment. The prognosis is favorable if the patient is seen within forty-eight hours of the attack, and, as a rule, no corneal complication will occur unless the child is extremely delicate and poorly nourished.

Prevention.—If the physician would attend more particularly to the first bath of the new-born, and not leave the entire charge to a nurse—perhaps an ignorant one—much trouble and suffering might be averted. All the bathing utensils should be perfectly free from any contamination of the mother. These seeming trifles well attended to will prevent many a case. The treatment may be divided into two parts; one to be carried out by the physician, the other by the nurse or attendant.

First.—The patient should be seen daily for the first two weeks. Remove all secretion from the edges of the lids by a moist cloth; separate the lids gently and examine carefully the cornea. If, in everting the lids, there is little or no bleeding from the conjunctiva, apply, after removing all adherent secretions by means of a camel's-hair pencil, a solution of argenti nitrat (gr. x. ad xx.—aq. ʒj.) carefully to the upper and lower lid. Some neutralize the excess of silver by applying immediately a solution of chloride of sodium. This we think unnecessary, as the secretions of the eye usually neutralize any excess of silver. The lids should then be placed in their natural position. The cornea should be inspected at each visit, and, if hazy, a weak solution of atropia sulph. (gr. ss.—aq. ʒj.), instilled. We prefer the ten-grain silver solution with the occasional use of the "mitigated stick" 1:2 (composed of nitrate of silver and potassa).

This treatment is kept up daily until the swelling of lids disappears, cornea clears up, and secretion ceases. The secretion being highly contagious, both the physician and nurse should be very careful and wash their hands after each application.

Second.—The treatment by the nurse or mother. This is really the most important, as the cardinal point is extreme cleanliness of the eyes. A few pieces of old linen, about two inches square and of only one thickness, should be placed upon a small block of ice, and, when cold, placed upon the closed lids of the

patient. When these become warm they should be replaced by cold ones. This should be kept up as long as the child will tolerate it. One-half hour six times a day, until the discharge and swelling sensibly decrease, will be none too long at first.

The eyelids should be carefully separated every hour and cleansed of all secretions adhering to their edges, and the secretion in the conjunctival cul-de-sac washed out by means of a solution of alum (ʒj.—aq. Oj.), by means of the ordinary medicine-dropper or pipette. In this way only can thorough cleansing be obtained. Chlorine water diluted may be also used with good result. We object to the use of solutions of lead, as frequently deposits of it have been found upon the cornea. Vaseline applied to the edges of the lids acts a good purpose, and should be used often during the day. This method, faithfully carried out by the mother or nurse, will add largely to the safety of the eyes.

The above treatment is, we believe, the one most commonly practised by ophthalmologists. Certain we are that a patient seen within forty-eight hours will have no impairment of vision if subjected to the above.

The prolapse of iris and other complications occurring in the cases not under treatment early, need special care, which we will not at present detail, as we hope to diminish largely such results by arousing the general practitioner to the importance of early and prompt treatment.

Care should be given to the general health of mother and child, as often the virulence of the disease is due to bad nutrition.

We hope these few remarks will be accepted in the spirit in which they are given, and that they will arouse attention to this destructive disease.

128 EAST THIRTY-EIGHTH STREET, NEW YORK.

CLASS-ROOM LESSONS ON CHANCROID.

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS
IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

(For THE MEDICAL RECORD.)

II.

THE TRUE NATURE OF CHANCROID—DIAGNOSIS OF APPARENT CHANCROID.

GENTLEMEN:—I will next direct your attention to the question of the *true nature of chancroid*, for it is essential that this should be appreciated before proceeding further in our study of the affection.

If it is a specific disease, that is to say, only capable of being set up through contact with the secretion of a previously existing chancroid, then acquirement of chancroid is proof indisputable of criminal venereal contact, either by the subject of it, or of the one from whom it was mediately or immediately contracted. It will at once be seen that this is a point which may become of great importance in its medico-legal relations. It will then be worth our while to pass in review some of the known facts bearing upon this matter.

First let us determine exactly what is understood by the term *chancroid*. We may accept the usual definition, namely, that sores promptly following venereal contact (from 24 hours to 8 or 10 days), possessing the destructive and contagious property are called

chancroid, and are claimed by certain authorities to be due in every instance to a specific virus.

Fournier says this in the most emphatic way, thus: "If all the patients in the world with chancroid would avoid contact with others until their malady got well, the disease would cease from off the earth." This is quoted in a recent work on syphilis, etc., by Drs. Van Buren and Keyes, and emphasized by a positive statement that chancroid arises only from chancroid. (Page 477.)

It is known and accepted that chancroids vary in activity, from those which are highly contagious and rapidly destructive, to those which are feebly destructive and are inoculated with difficulty. This is a well-known clinical fact, and has been repeatedly proven in the experiments with artificial inoculations by Boeck and others.* "A certain pus is employed ('chanoroidal') and re-inoculated until it will no longer produce a pustule; then *fresh* pus from some *younger chancroid*, until it also fails."†

If this decadence takes place in the artificial inoculation, it is not reasonable to suppose that the same result would be reached by repeated inoculations through venereal contact. Hence the chancroid by the continued re-inoculations of venereal contact would grow less and less virulent as communicated from person to person, until it finally died out.

Unless therefore new foci of contagion were created, or *new virulence added*, chancroid would long ago have "ceased from off the earth." We must then take one of these two positions in regard to it; either some added virulence must be accepted as arising from circumstances connected with the venereal contact (since it has been conclusively shown that by simple re-inoculation chancroid speedily loses its contagious and destructive properties), or that from circumstances connected with venereal contact new chancroids are originated. It is not necessary that we should be able to explain the exact combinations which increase the virulence of a declining chancroid, or which give rise to it *de novo*, in order to prove that certain possible conditions really do intensify and even originate chancroidal action or virus. If there is a difference between the behavior of the chancroidal virus when inoculated by means of a lancet, and when inoculated through venereal contact, that difference can only be referred to the circumstances attendant upon the venereal act. How, then, do the circumstances differ in an artificial and in a venereal inoculation? In the first, we have the virus inserted free from local or general circulatory excitement. In the second, both are distinctly present. Under circumstances of equal cleanliness and equally free from undue tendency to purulence, the result might not be markedly different. But to the latter mode of inoculation, viz., that by venereal contact, we may have, in addition, various potent influences, such as increased irritation from irritant leucorrhœal menstrual and preputial secretions, filth, excessive venereal indulgence. Each one of these added conditions is well known to be capable of initiating local inflammation and of increasing inflammatory processes already instituted. It can even be shown that a combination of these conditions may originate a lesion which distinctly exhibits loss of tissue, and the secretion of which is capable of setting up a similar lesion on an opposing surface, therefore possessing the contagious property. If this can be proven, it seems to be clear that the difference between a lesion thus produced and the typical so called *specific*

chancroid is simply one of degree, and it may be logically claimed that circumstances which have been shown capable of setting up such a lesion, and which are shown to add to the virulence of a declining typical chancroid, may under favoring conditions produce an actively destructive, promptly contagious lesion—that is to say, a typical chancroid.

Now, it is a well-recognized clinical fact that certain conditions predispose to purulence. A lowered state of health, free from any disease, was shown in Dr. Wigglesworth's case, not alone to favor simple suppuration, but to be capable of producing pus of a distinctly contagious character.*

Persons affected with syphilitic disease,* scrofula, scorbatus, chronic splenitis, etc., are also predisposed to purulence; this can also be said of the subjects of every species of dyscrasia. Local conditions may also increase the suppurative tendency. Redundant preputial tissues—producing undue heat, moisture, and friction, favor purulence; also, dependent position. Prof. Boeck's experiments in inoculations of chancroid showed that the higher upon the body inoculations were made, the less tendency to excessive suppuration and also to phagedena.

Again, it is a well-established fact that changes occasionally take place in purulent secretions, through which new qualities and powers are developed. Benign or "laudable" pus may thus acquire a highly irritant property, as shown in the following case:

CASE I.—A gentleman was presented to me some time since complaining of an inflamed condition of the glans penis and prepuce, which inflammation, as he said, followed every connection with his wife. On examination, the preputial tissues were found to be redundant, and the mucous membrane of the glans, as well as of its preputial reflection, was intensely congested and bathed in a muco-purulent secretion: this condition appearing at once after connection, increased, the parts becoming moist and painful, and continuing more or less so for several days. The wife was said to be afflicted with a profuse purulent vaginal discharge. It was also stated by the patient that connection with his mistress was not followed by any such trouble.

Again in certain cases, instead of a diffused inflammation we may find more strictly localized inflammatory lesions from a similar cause, as will be shown in the following case:

CASE II.—Mr. H—consulted me about five years since on account of a pustular eruption on the preputial mucous membrane, near its attachment at the fossæ glandis. His first trouble had appeared about six months previously as a single pustule in the fossæ on the right side. This was shown to a surgeon, who, notwithstanding the patient's assurance that he had no connection except with his wife, promptly pronounced it a chancroid and cauterized it with nitric acid. Within a day or two several small vesicles appeared in the vicinity, when the surgeon came to the conclusion that the primary lesion was of the same character, and that all were herpetic. The vesicles also became pustular and healed under a simple astringent dressing. There was a history of several subsequent similar attacks. In view of these facts the half-dozen lesions presenting on his first visit to me (previously alluded to), although distinctly ulcerative, with inflamed border, and varying in size from a small split pea to a grape-seed, were considered of herpetic origin. The correctness of this view was confirmed by their rapid healing under simple astrin-

* Burnstead on Venereal Diseases, p. 317 et seq.

† Van Buren and Keyes, p. 479.

* Lesson 1, p. 6.

gent applications. A mild tannic-acid lotion was prescribed as a prophylactic, which, however, did not prevent recurrence of the trouble within a week. This yielded like the previous, and a lead lotion was used, with the apparent effect of preventing further trouble for nearly a month, when the patient went off on a fishing excursion. On his return, some ten days after, he presented not only pustules on the site of the previous ones, but several on the glans penis *exactly corresponding to the locality of pustules on the preputial mucous membrane when drawn forward on the glans*. In addition, there was a somewhat painful enlargement of the inguinal glands of the right side, attributed by the patient to taking cold after resting the butt of his brass rod for several hours in the groin of that side. The pustules healed somewhat tardily under repeated applications of nitrate of silver, but the glands went on to suppuration and the formation of deep sinuses. All healed, however, in a couple of months, when, three days after connection with his wife, another crop of pustules was discovered.

It was then suspected that the difficulty was the result of the connection; and upon a careful retrospect, the patient came to the conclusion that several, if not all of his previous attacks, had followed similar connection after about the same interval.

On inquiry, the wife was found to have been, for the previous six months, under treatment for an obstinate uterine catarrh by a distinguished gynecologist, who fully confirmed my opinion that contact with the acrid leucorrhoeal discharge had occasioned the husband's trouble. Her final recovery and his subsequent immunity from the so-called herpetic trouble fully supported this conclusion. Both the gentleman and his wife were wholly free from suspicion of any illicit contact.

Another instance of ulcerative and contagious lesions from non-specific causes will be recognized in

CASE III—Mr. S —, aged twenty-seven, had been married about two years, when, after the birth of a second child, his wife suffered from a leucorrhoea which continued more or less troublesome for several months. In seeking my professional aid for himself, he stated that during this time he was subject to occasional attacks of herpes preputialis, and that whenever any abrasions occurred during connection, they were sure to be followed by points of ulceration, which only healed after several days' treatment by bathing and simple cerate. On examination, several sharply cut ulcers, from one to two lines in diameter, were seen on the preputial reflection and in the fossæ glandis. There were also two on the glans penis, more recent and smaller, which matched exactly upon similar lesions on the preputial reflection when the prepuce was drawn forward. The current attack was said not to differ essentially from those to which he was accustomed, except in that it was associated with enlargement of glands in both inguinal regions. One point especially, in the right groin, was inflamed, sensitive to touch, and fluctuating. This was opened, and discharged a small quantity of laudable pus. The ulcerations healed under the influence of cleanliness and simple applications; the patient necessarily keeping at his business as book-keeper in a large wholesale establishment; but the glandular abscess—the only one occurring—lasted for a full month before healing was complete. The patient's general health was fair. No scrofulous or syphilitic antecedents. The only apparent causes predisposing to ulcerative trouble was a very moist and redundant prepuce, which was subsequently removed. Since the circum-

cision, now four years, there has been no reported recurrence of the herpetic trouble.

Again, it would seem that ulcerations may occur under certain circumstances, as a result of contact with vitiated normal secretions, as shown in the following:

CASE IV.—A gentleman who had been under my professional care for several years previous, and had no occasion to misrepresent his case, sent for me. He stated that he had a gonorrhoea acquired from an illicit connection with the wife of an intimate friend thirteen days previous. On the completion of the act, the lady discovered that she was menstruating, and so remarked, with many expressions of regret. Some four days after, a little soreness was felt in the urethra, near the orifice, and in a day or two more a whitish discharge appeared. He consulted a medical friend at his club, who, after hearing of the exposure, pronounced the trouble gonorrhoeal, and treated him with capsules and an injection. After ten days of this, getting neither better nor worse of the discharge, a tenderness and swelling of the right inguinal gland occurred. Through his wife's solicitation, he sent for me. On examination I found a very scanty purulent discharge from the meatus urinarius, on opening which a sharply cut ulceration was seen just within the orifice, and about the size of a grain of rice; there was no urethral tenderness beyond this point. The gonorrhoeal remedies were discontinued, and the lesion thoroughly cauterized with argent nit., solid. An inflamed bubo of the right inguinal region, size of a walnut, was also present; no fluctuations. This was painted with iodine. Suppuration occurred after several days, and the abscess was freely opened, discharging apparently healthy pus. Auto-inoculation of this pus failed to produce any result. The urethral ulcer resisted repeated cauterizations for about a fortnight, and then healed. At about this time the wife began to suffer from painful urination, and an examination revealed a superficial ulcer of mucous membrane, the size of a three-cent piece, just below and infringing upon the meatus urinarius, secreting pus freely. The husband acknowledged to an attempt at connection on an evening following the illicit intercourse, but stated that, with this exception, it was the only one, except with the friend's wife, that he had for a full month. In addition, the lady had a swollen and inflamed inguinal gland in the right groin. The lesion at the meatus urinarius was touched with pure carbolic acid, previously to which, however, the purulent secretion from it was inoculated on the thigh of the husband. The result of this inoculation was negative. Notwithstanding repeated applications of the carbolic acid, the ulceration in the wife progressed in depth and extent during the following ten days, until it invaded the urethral canal a full quarter of an inch; then an application of pure nitric acid was made. During this time several more unsuccessful inoculations were made upon the husband. Much urinary distress occurred, and notwithstanding the application of the nitric acid, the ulceration progressed along the urethra, which in the meantime was treated by suppositories of iodoform and cocoa butter. The lady was in delicate health, but without any constitutional dyscrasia. Tonics were administered, but the suffering increased and the ulceration was advancing into the deeper part of the urethra. During all this time the lady with whom the husband had the illicit intercourse had been calling almost daily on visits of courtesy and condolence, and both were free from any trouble. A distinguished surgeon, an

authority on genito-urinary diseases, was then called in consultation. To my great surprise he stated it as his opinion that the ulceration in the wife's case was non-specific, and only a coincidence; not at all the result of contamination from the husband, but from other accidental causes, and advised a continuation of application of the iodoform; if this failed to benefit, a change of air, a sea voyage. No improvement taking place in a week, the parties made a voyage to Havana, and, without other treatment, recovery practically took place within a fortnight.

Progress of Medical Science.

A NEW TEST FOR THE PRESENCE OF BILIARY COLORING MATTER IN THE URINE.—Nitric and hydrochloric acids, according to M. Masset, are not as delicate tests for the coloring matter of the bile as nitrate of potassium. The urine to be examined should be acidulated by two or three drops of concentrated sulphuric acid, and a small crystal of the nitrate dropped into it. The reaction is immediately established, a beautiful grass-green color being produced, if the quantity of the biliary coloring matter is large. On shaking the liquid the color becomes uniform, and of a deep tint; boiling does not change it, and it may be preserved for several days without alteration. The addition of water simply diminishes the intensity. If the biliary matters are present in but small quantity, the liquid takes in a very short time a pale green color, which also is persistent; it can easily be perceived by placing the tube between the eye and daylight, or in front of a white background. In these circumstances normal urine should present a light rose color. At the beginning of certain maladies, where the ordinary tests are useless, this reagent, it is thought, will be of service on account of the facility of its application and the distinctness, delicacy, and constancy of the reaction; further, it is not subject to the errors of observation, or the uncertain or erroneous interpretations attendant on the usual methods of examination.—*Journal de Médecine*, May, 1879.

ON THE SO-CALLED MYOSITIS OSSIFICANS PROGRESSIVA.—After giving an exhaustive anatomical description of two cases that were examined post-mortem in Heidelberg, Dr. Mays states it as his opinion that we have to deal in this affection not with a true myopathy, but with a process which starts in the connective substances—in the bones, tendons, and fasciæ, as well as in the connective tissue lying around and within the muscles. In the bony system the affection manifests itself by hyperostosis and exostosis, and by the development of synostoses (in the vertebral arches). Of the ossifications in the soft parts—which are demonstrated by the microscope to consist of actual bony tissue—many are directly connected with the skeleton, and this may then safely be assumed as the original point of departure of the process; while others are entirely isolated from the bony framework of the body, and evidently originated in the fasciæ or the loose connective tissue. The contiguous muscles merely lie on these osseous new-growths, from which they can be easily separated. The direction in which the new-growth extends does not at all coincide with that of the muscle fibres. Many connective-tissue structures undergo hyperplasia; the fasciæ are generally very strongly de-

veloped, and in some spots new tendinous bands and aponeuroses form. The pathological changes in the muscles themselves consist partly of simple atrophy and partly of fibrous and fatty degeneration. They may be regarded as secondary, and due to the altered conditions of nutrition and compression.—*Centralblatt für Chirurgie*, June 21, 1879.

MYXÆDEMA.—Under this name, M. Gull describes a disease characterized by a cretinoid state, occurring among adult women. It consists of a general enlargement of the whole body, especially marked in the face, which enlarges transversely, and becomes round. The skin becomes soft and delicate, and acquires a sort of transparency analogous to that of porcelain; the cheeks are rose-colored. The subcutaneous cellular tissue about the orbit becomes loosened; that of the back of the neck and of the throat, thick and folded. The distance between the eyes seems large, and the root of the nose depressed. The lips, large and thickened, are of a purplish red color; the alæ of the nose are hypertrophied. The face is modified in its shape, and assumes a bloated appearance, at the same time preserving a soft and rather agreeable look. The tongue becomes large and thick, the voice guttural, and pronunciation is impeded by the deformed tongue. The same changes appear in the hands, and they become infiltrated and massive. As the disease progresses the patient becomes listless, and capable of less and less exertion; the intelligence is dulled, and the habitual indifference is but rarely interrupted by periods of irritation. There is, properly speaking, no mental trouble. The trunk and inferior extremities become loaded with fat, giving the appearance of general œdema. Dr. Ord, who has observed similar cases, thinks that the disease is characterized by a gelatinous condition of the fibrillar elements of the connective tissue. Cases of this affection are extremely rare, and have been mostly reported from France under the general and vague name of polysarcia, or adipose polysarcia. M. Olive reports, among others, the case of a pensioner who became subject to a gradual solid swelling, which extended from the face to all the body, and which first made its appearance at the age of forty. The description of this case corresponds exactly with that given by Gull. Treatment does not appear to have been accompanied by much success.—*Journal de Médecine et de Chirurgie*, July, 1879.

TREATMENT OF DIPHTHERIA.—Prof. E. J. Bondorff, of Sweden, has had a very extended and successful experience in the treatment of diphtheria, and has used the following method for about twenty years:

In all cases, he has endeavored at the outset to determine the nature of the diphtheritic exudation and its seat. In more than a thousand cases of the disease which he has observed, he has found two different forms of exudation: (1) a superficial and evenly spread coating over one or both more or less swollen tonsils, and the arch or velum of the palate; (2) an exudation extending into the substance of the tonsils, on the surface of which are noticed more or less numerous white-gray spots, for the most part sharply demarcated, and of varying forms. The method of treatment consists in mechanically removing, by every means possible, the exudation and all mortified tissues which can be removed, and, when this has been done as thoroughly as possible, pencilling the surface with a strong solution of nitrate of silver. He dips a wet brush in powdered nitrate of silver, and then makes the application. This operation is to be repeated in severe cases twice a day, according as new masses of exuda-

tion are observed, and continued till no further exudation is perceived. The patient should be watched for several days, and should a relapse occur, the treatment must be repeated.—*Hygieia*, No. 4, 1879.

RAPID CURE FOR SINGULTUS.—Dr. Grelletz states that a mother whose child occasionally had singultus, either from the immoderate or too rapid repletion of the stomach, or from some other cause, was in the habit of checking the symptom instantly by the administration of a lump of sugar saturated with vinegar. The doctor tried this remedy in a number of cases, and always found it promptly successful.—*Res. Med. & Giorn. Veneto di Scienze Med.*, May, 1879.

THE ORIENTAL PEST.—Prof. Hedenius read a paper before the Upsala Medical Society in which the history of the several outbreaks of pest, from the earliest times to the present, as well as the views of prominent writers on the subject, are critically examined. The pest is an extremely acute infective disease with a severe, adynamic febrile character, which is characterized by multiple localizations, especially in the external lymphatic glands (buboes), and occasionally also by the development of anthrax or carbuncle. In consequence of its febrile character, or the very prominent status typhosus, together with the localizations in the lymph system, the almost constant tumefaction of the spleen, and an occasionally occurring roseola, the pest would appear to be a specific variety of typhus, distinguishable from other typhus partly by its acute course—six to eight days—partly by the early appearance of the buboes. In consequence of the not unfrequent occurrence of carbuncles, which are sometimes primary, sometimes secondary in relation to the general disease, the pest presents several analogies with malignant pustule, but is distinguished from the latter by the simultaneous buboes, which occur most frequently without carbuncles. From pyæmia and cadaveric poisoning, which it undeniably resembles in many points, it is distinguished by its epidemic occurrence, and from pernicious chills by a more longitudinal enlargement of the spleen and by its contagiousness.

Besides this so-called Oriental pest, there is the Indian pest, a specific variety of pest in a nosographical and epidemiological point of view. The latter disease is also a bubo pest, it is true, and therefore very similar to the Oriental variety, but is distinguishable from it by a peculiar, probably septic lung inflammation, which occurs at the very commencement of the disease, is combined with pulmonary hemorrhage, constitutes the most dangerous symptom of this disease, and causes death on the second, or, at latest, on the third day—often before the appearance of the buboes.

The period of incubation, which is naturally of great importance in connection with the subject of quarantine, is very frequently only two to five days, and hardly ever extends beyond seven days after the infection.

Taking into consideration the fact that each epidemic, since the renewed appearance of the pest in the Orient in 1867, is more extended than the one immediately preceding, and that the disease has at last extended over the boundaries of Europe, it would undeniably appear as though we were threatened in the early future with a new pest period, and that strict protective measures were very necessary.—*Upsala Läkars för Förhand*, No. 2, 1879.

ANATOMICAL PROOF OF THE PERSISTENCY OF THE CERVIX IN PREGNANCY.—A long and excellent article on this subject was published by Dr. M. Säger, of Leipsig, in the *Archiv für Gynäkologie*. After an elaborate

historical criticism of the question, in the course of which he controverts with great ability the views of Bandl and Küstner on this subject, the author gives an account of the condition of the cervix uteri in the case of a patient who had died suddenly in a convulsive seizure about the end of the ninth month of utero-gestation. Cæsarean section was performed immediately after death by Professor Crédé, and the state of the uterus, and especially of the cervix, was carefully determined by Dr. Säger. It was found that the plicæ palmatæ of the mucous membrane of the cervix were perfectly intact, and that the membranes covered with the decidua ran closely down to the edge of the cervical mucous membrane. It was impossible to doubt where the cervix ended and where the lower uterine segment began. There was no intermediate space, as insisted upon by Bandl and Küstner, between what they call the inner os and ring of Müller. The anatomical evidence of the case, more especially when subjected to microscopical examination, in the most emphatic manner supports the view of the persistency of the cervix during the whole of pregnancy until near delivery, and contradicts flatly the view, that in any sense the cervix is used up in such a manner as to amplify the lower uterine segment. In Dr. Säger's case there was no elevated ring at the junction of the cervix and lower segment of the body, as in a case recently published by Müller, but the cervix and body of the uterus ran directly the one into the other in the same plane. Dr. Säger thinks that though anatomical evidence is the most reliable in deciding this question, careful clinical observations, taking care that the softened cervix is not shortened unnoticed during the exploration, is also of great value as corroborative evidence of the persistency of the cervix. The dimensions of the vaginal portion of the cervix in this case were as follows: Anterior wall, 1.5 centimetres = .6 inch; posterior wall, 2 centimetres = .8 inch; breadth of its base at the highest part of the vaginal end, 2.5 centimetres = 1.0 inch.—*Edinburgh Medical Journal*, August, 1879.

REMOVAL OF LOOSE CARILAGES FROM THE KNEE-JOINT BY DIRECT INCISION.—Mr. Annandale reports two cases in which he opened into the knee-joint, with antiseptic precautions, for the purpose of removing loose cartilages. The first case was that of a coachman, aged sixty-eight. On the 4th of March a free incision was made into the joint, on its inner aspect, and three loose cartilages removed. The wound was stitched up, no drainage-tube being used. Union by first intention was obtained, and throughout the progress of the case there was no swelling or inflammation of the joint nor constitutional disturbance. The patient left the hospital on the 5th of April, cured. He has been heard of since, and the result is in every way satisfactory. The operation on the second case was performed on Oct. 5th, the joint being entered from its outer aspect, and the cartilage removed. As in the other case, the wound was closed, and no drainage-tube inserted. The wound healed rapidly by first intention, and after four dressings with the carbolic spray was found to be skinned over. No pain or swelling in the joint followed the operation, and the patient was discharged cured on Nov. 2d. He returned afterwards, and reported that he was able to walk long distances, with no inconvenience and no perceptible limp. Mr. Annandale thinks that the excellent results obtained in both instances proves the safety of cutting into healthy joints, provided the Listerian antiseptics be carefully employed.—*The Lancet*, Aug. 2d, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 20, 1879.

THE MEDICINAL USE OF ALCOHOL.

PROFESSIONAL interest in the alcohol question has not diminished. At the recent meeting of the British Medical Association an interesting discussion was held on the use of alcohol in the treatment of disease, and a number of noteworthy papers were read. The discussion was restricted to its use chiefly in fever. The first paper was read by Dr. James Little, of Dublin, on the value of alcohol in sustaining the powers of life in acute and chronic disease. The position which he assumes is, that alcohol as a drug has great power, both for good and for harm; that we are in danger of losing sight of its injurious influence while seeking its good effect; and that, on the whole, the consensus of medical opinion regarding alcohol is much too favorable. Wine and brandy are his favorite preparations, and, going back to Stokes and Corrigan, he accepts, as a guide for their administration in fever, the rule which, we believe, is especially emphasized in this country, namely, weak pulse, or, as an old and skilful practitioner used to say, a "swinging pulse," and feebleness of the impulse of the first sound of the heart. It does not necessarily follow, when these conditions are present, that the ears and extremities of the patient are cold, or that pulmonary stagnation is present—further indications for which Dr. Little impliedly looks. Indeed, those are the conditions which, we believe, a wise administration of alcohol, wine, brandy, or whiskey is capable of preventing, and towards which its use should be especially directed. In other words, we believe it is safer to aid nature when she first signals that her powers are flagging, than to wait until she cries out for assistance. This, however, does not imply that the remedy is to be used indiscriminately; but, on the other hand, it presupposes that the medical attendant deals with his case cautiously, and with his ear hears the first plaintive supplication for aid.

The diseases in which Dr. Little believes alcohol is specially serviceable are catarrhal typhus and pneumonia. Dr. H. Macnaughton Jones, physician to the Cork Fever Hospital, gives his experience in the treatment of 899 cases (independent of private cases) of typhus, typhoid, and simple continued fever, and reaches the conclusion that, while a large percentage of cases do not require alcohol, it is a most valuable therapeutic agent in both typhus and typhoid fever. He, however, has but little faith in the early employment of alcoholics in fever, even in those patients who have been addicted to their use, and has rarely seen any good effect from them when they are used to "prevent" an adynamic condition. In 1875 he published, in the *Dublin Monthly Journal of Medical Sciences*, a table of 310 cases of fever; of these, 220 had no stimulants, 58 had claret alone, and 33 had brandy. Of this number 110 were typhus fever patients, of whom 26 received stimulants. The mortality in the typhus cases was eight per cent.; in all the other cases, 34 per cent. From 1875 to 1877, 30 per cent. of the cases had stimulants at some period of the fever. From 1877 to 1879, 36.17 per cent. had stimulants; and in the typhus cases they were given in the greatest per cent. in the latter period of the disease, and the rate of mortality was about the same as noted above. The total percentage of cases of typhoid fever taking brandy was 20.56, with 36.36 as the rate of mortality; and the total percentage taking claret was 25.23, with a death-rate of 7.40. Of 117 cases of simple continued fever, 5.12 per cent. were given brandy and claret respectively, and no deaths occurred.

A feeble, irregularly acting heart, with weakened first sound, rapid compressible pulse, and absence of violent head symptoms, encourages him in their use and continuance. While he does not use alcohol to "prevent" the entrance of the wedge, he uses it to remove the wedge, or at least to arrest its riving effects, when its presence is indicated by the condition of the heart and the general condition of the patient to which allusion has just been made.

The discussion was continued by gentlemen who entertain extreme views on both sides of the question. Dr. Kerr, of London, believes the vital forces can be sustained by milk, unfermented wine, beef tea, and gruels while the fever runs its course, and rarely gives alcoholics. He fears the reactionary disturbance of alcohol, and claims that the circulatory system can be equally, promptly, and efficiently stimulated by means of injections of hot water, by the repeated injections of ether, by flying sinapisms and blisters, and by digitalis. We confess we are not quite able to understand what flying blisters and sinapisms can do towards sustaining the flagging forces of nature in an advanced case of typhus or typhoid fever, and prefer to submit ourselves to the care of an intelligent and discerning practitioner who aims to soothe and sustain rather than to irritate.

On the whole, however, there was a notable unanimity of opinion regarding the value of alcohol in the treatment of fever. As Dr. Andrew Clark, the President of the Section on Medicine, puts it, "it was apparently agreed that the patient in fever was like a ship in the storm; not much could be done for the storm, but a great deal could be done in steering the ship in the storm." The object is to support the life of the patient in passing through the perils of a fever; and when the patient's natural powers begin to fail, when his vital forces totter—danger becomes imminent and death threatens, there is perhaps no remedy more serviceable than alcohol. At the same time it should be given with a tentative hand, and, so long as certain evidences of disagreement do not arise, it may be continued, with the idea that we are aiding the patient in outliving the disease.

Besides this discussion, there is lying before us the Sixth Annual Report of the London Temperance Hospital—an institution for the treatment of all kinds of diseases without using alcohol in any way, even in the form of tinctures.

During the twelve months ending April 30, 1879, there were admitted to this hospital as in-patients 140 persons. This number is altogether too small to enable us to make a fair comparison, regarding many important features, between these patients and a like number treated at an ordinary hospital; but we can legitimately avail ourselves of the opportunity to examine the cases which are reported as illustrations of the good results obtained by what is termed "treatment non-alcoholic."

"CASE 633.—G. R.—, aged 40; non-abstainer; cabman, and married; suffered from jaundice," which went through "all its phases" in seventeen days without the use of alcohol in its treatment. Recovery, even without medicine, can be expected with a great deal of confidence in all such cases.

"CASE 664. St. Vitus's dance.—J. C.—, aged 8; life abstainer." The cause is put down as "fright." She remained in the hospital two months, and was discharged cured. It is an established fact that the tendency in this class of cases is towards recovery; and, besides, we have not yet seen it recorded that alcohol is a remedy ordinarily employed in its treatment.

"CASE 610.—W. C.—, aged 24; abstainer;" was admitted to the hospital, July 15th, with "pneumonia of the left lung," and discharged cured on August 8th. A legitimate termination of the case, independent of any medicinal treatment whatever.

"CASE 682. Epithelioma of the lower lip.—P. S.—, aged 40; abstainer; gardener." The growth was removed by "making a very free sweep with the knife." "The treatment was non-alcoholic," and the patient was discharged cured at the end of twenty-four days. Nothing but unforeseen causes and meddlesome interference could prevent such a result, if the operation was well performed.

Several other cases are reported, and with one or two exceptions, with the facts as given in the report, there is no evidence in any of them to show that alcohol would have been administered by the most ardent advocates of its use in the treatment of disease. One case of cellulitis (679) of the right leg recovered, although "the strength was decreasing, owing to the exhausting nature of the discharge, pain, and want of sleep;" but we believe it should be placed to the debit rather than to the credit side of the plan of treatment. We also believe that the directors would have done well to have withheld all such records of the hospital from public inspection. Such reports belittle the temperance cause, bespatter the face of science, and beget in the minds of many an unwonted hostility to such enterprises. That alcohol, when properly used in the treatment of disease, is beneficial, we believe has been fully established.

THE SUDDEN DEAFNESS OF SYPHILIS.

DR. SAMUEL SEXTON, surgeon to the New York Ear Dispensary, in a paper published in *The American Journal of Medical Sciences* for July, 1879, draws attention to this rare manifestation of syphilitic disease, which he describes as occurring during the secondary period of the infection. Heretofore this lesion has been generally thought to have its seat in that portion of the ear occupied by the terminal filaments of the auditory nerve—viz., the inner ear; but Dr. Sexton believes that the difficulty lies mainly in the conductive apparatus of the middle ear, and that impressions of sound fail to reach the nerve on account of anomalies of the latter. He has found a confirmation of this conclusion in the fact that the patients could hear themselves talk or sing, frequently with correctness, while no ordinary sound of the voice penetrated the ear from without. He believes, furthermore, that the ear is not invaded by syphilis in these cases from the throat *per* the Eustachian tube, but that the attack is invited, as it were, in most instances, by pre-existing hyperæmia, or catarrhal inflammation of the middle ear arising from other causes.

These special invasions of syphilis are characterized by their *suddenness* and by their *severity*. Both ears are usually affected almost simultaneously, and the recorded cases seem to show that neither ear entirely escapes under any circumstances.

A rapid deposition of lymph probably takes place in these cases, causing instantaneous fixation of the ossicles. So rapid indeed is the invasion, that one patient went to bed with good hearing in one ear, and when he awoke in the morning his hearing was gone; the other ear had become deaf with even greater suddenness. The two attacks in this case were two years apart, and were both immediately preceded by a detonation compared to a pistol-shot, and extreme vertigo and vomiting. The doctor states that most dis-

trressing *tinnitus aurium* usually accompanies this disease from the outset.

The affection is not a suppurative one, none of Dr. Sexton's reported cases having that character; indeed, the visible lesions of the ear are in no way commensurate with the gravity of the disease. The inner end of the meatus is usually hyperæmic, and the epidermis exfoliates; the drum-membrane is thickened, ashy in hue, and of course lustreless; its plane is not always altered, and the Eustachian tubes are free. Dr. Sexton performed paracentesis of the membrana on some of these cases, but found no fluids in the tympanic cavity. The disease is not a painful one, as far as the ears are themselves concerned, although occasionally there was cerebral pain.

The treatment of these cases has not been attended with a restoration of hearing, but it has always occurred that the patients have failed to make timely application for relief to persons competent to recognize the importance of the aural disease. Treatment, to avail, must be most prompt, and should consist of the internal, together with the cutaneous, use of mercurials, in combination, perhaps, with the iodide of potassium.

Reviews and Notices of Books.

A TREATISE ON HYGIENE AND PUBLIC HEALTH, Edited by ALBERT H. BUCK, M.D., American Editor of Ziemssen's Cyclopædia of the Practice of Medicine, Aural Surgeon to the New York Eye and Ear Infirmary. Vols. I. and II. New York: William Wood & Co. 1879.

THIS work is in two large volumes, which contain 790 and 850 pages respectively. It consists of a series of articles written by men deservedly eminent in the medical profession, and with special reference to the private and public hygiene of different climates, conditions of soil, habitations, modes of life, and laws of the United States. It is intended not only for physicians and sanitarians, but for all educated classes.

The first volume has two parts. The first part is devoted to individual hygiene and the second to the hygiene of habitations.

The introduction includes prefatory remarks, causes of disease, and jurisprudence of hygiene, and was written by John S. Billings, M.D., Surgeon United States Army, and Vice-President of the National Board of Health. It is concise, and shows a masterly familiarity with the subject on which its author writes.

The first article in the first part of the first volume is on Infant Hygiene, and was written by A. Jacobi, M.D., Clinical Professor of Diseases of Children in the College of Physicians and Surgeons in the City of New York. This article contains valuable and practical instruction regarding the general care of the new-born child. It tells us the care that should be taken with reference to respiration and circulation, the skin, bathing and temperature, infant feeding, selection of wet-nurse, proper milk for the child, animal and vegetable substitutes for milk, intestinal digestion, mode of giving food, care of the teeth, age of schooling, etc., all of which are topics of the greatest interest and importance to the child, the mother, and the physician.

The second article is on Food and Drink, and was written by James Tyson, M.D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania. This article includes the classification of food and drink and their physiological uses, based upon chemical composition. The subject of special foods, their adulteration and inspection, forms the subject of another chapter, which appears in the second volume, and is from the pen of another writer. After giving a classification of food, he considers first that which is direct aliment; second, indirect aliment, and then passes to the study of accessory foods, the necessity of a mixed diet, the modifications in the proportions of different alimentary principles demanded by differences in temperature and climate, the effects of cooking, the proper daily amount of food, and certain conditions and diseases resulting from the use of defective, deficient, excessive, or diseased food. Dr. Tyson's article sustains the high reputation given to the treatise by the writers by whom he is preceded.

The third article is on Drinking-water and Public Water Supplies, and was written by Professor Wm. Ripley Nichols, of the Massachusetts Institute of Technology, Boston, Mass. This article is in itself a treatise on the quantity, the quality, the question of cost, the sources of supply, artificial improvement of natural water, effects of conduits and distribution pipes upon potable water, impure ice and sanitary examination of water. There is also a bibliography. It is illustrated, contains a vast amount of valuable and practical information, and is written in an easy, flowing style.

The fourth article is on Physical Exercise, and was written by A. Brayton Ball, M.D., of New York City. This article, although presented in a most admirable manner, lacks the practical interest which characterizes those by which it is preceded. As a series of scientific lectures on the higher orders of physical exercise, such as rowing and training, and a history of athleticism, it is excellent, but it is too scientific, and looks too much into the past to be acceptable to the present generation as a popular dissertation on physical exercise.

The fifth article is on the Care of the Person, and was written by Arthur Van Harlingen, M.D., of Philadelphia, Pa., Chief of the Clinic for Diseases of the Skin, Hospital of the University of Pennsylvania. In this article are considered those means by which cleanliness, and the proper performance of the functions of the skin and its appendages are maintained, together with protection from the extremes of heat and cold and from external injury. The anatomy and physiology of the skin is presented in a brief but satisfactory and comprehensive manner. Then follow remarks on the bath, cosmetics, general bathing, clothing, beds, the care of the feet, the hands, the mouth, and the hair. The article reads like a story, and savors of plain, practical common sense.

The first article in Part II. of the first volume is on Soil and Water, and was written by William H. Ford, M.D., President of the Board of Health, Philadelphia, Pa. In this article the general subject of soil and water affecting health is studied under the three divisions of, constituents of the soil, pollution of the soil, and diseases produced by conditions of the soil. It is very elaborate, and occupies nearly 200 pages. It is one of the most comprehensive and valuable articles of the entire series. It is fully illustrated. Among the most interesting chapters are those on pollution of the soil by excreta, removal of excreta, methods of removal of excreta, the water system and

other systems, pollution of the soil by interments, by coal-gas, by surface defilement, and diseases connected with certain conditions of the soil.

The second article is on the Atmosphere, and was written by D. F. Lincoln, M.D., of Boston, Mass. For convenience the subject is studied under four heads: I. Natural Components of Air; II. Impurities; III. Meteorology and Climate; and IV. Ventilation and Heating. The chapters on heating and ventilation are fully illustrated, and contain descriptions of heating apparatus, remarks on stoves and furnaces, heating by steam and by water, and on ventilation. This article also has a bibliography. It is well written, and for the most part is within the grasp of the non-scientific reader.

The last article in the first volume is on the General Principles of Hospital Construction, and was written by Francis H. Brown, M.D., of Boston, Mass. The subject is considered mainly under the following heads: Location, General Character, Material, General Arrangement and Disposition, Arrangement of the several parts in Detail, Means of Heating, Ventilation, Drainage, and Cottage or Village Hospitals. It also has a bibliography, and is illustrated. This is a very readable article, and cannot but be valuable to those who are interested in the proper construction and management of this class of public institutions.

The book is printed with large type, on good paper, and is elegantly bound in a new style of binding. We see no reasonable ground for general criticism, and our special criticisms have already been indicated. Of the second volume, hereafter.

A MANUAL OF EXAMINATION OF THE EYES. A course of lectures delivered at the *École pratique*, by DR. E. LANDOLT. Translated by SWAN M. BURNETT, M.D., Lecturer on Ophthalmology and Otology in the Medical Department of the University of Georgetown, etc.

DR. LANDOLT's lectures form a convenient and valuable text-book, and Dr. Burnett has rendered a good service in translating them into English. The lectures are short, and each gives a clear account of the subjects treated. Revisions and additions have been made for this volume, which increase its value. At the back are convenient tables for the study of the ocular movements and their derangements. The book is of convenient size and well printed.

On page 67, in speaking of the asthenopic symptoms due to hypermetropia and presbyopia, the author says: "The cause of these phenomena is, as you are aware, an error of accommodation." We think this sentence objectionable when applied alike to both the varieties of asthenopia in question.

On page 70, in the description of muscular asthenopia, the author says: "In order to correct the insufficiency of the internal recti we seldom have need to make a tenotomy of one of them." Treatment by tenotomy is applied to the *external recti* in this kind of asthenopia.

On page 181 is this passage: "It was Donders who first called attention to the fact that the great majority of persons affected with convergent strabismus are hypermetropes, and that for the higher degrees of hypermetropia, strabismus becomes the rule." Compare the following extracts from the Sydenham translation of Donders' work on Refraction and Accommodation:

"In general, it is not the highest degrees of hypermetropia with which strabismus is combined."—Page 298.

"In the highest degrees of hypermetropia, strabismus is rarely observed." "We have already seen that

strabismus is met with chiefly in mean degrees of hypermetropia. These belong to facultative and relative hypermetropia," etc.—Page 801.

On page 147 we read: "In passing from an illumination of a less to one of a greater intensity or inversely, it takes a certain length of time (about twenty-five minutes) for the retina to become accustomed to the altered illumination, and to put itself in harmony with it."

We think twenty-five *seconds* would be nearer the truth, judging from ordinary experience.

Reports of Societies.

WEST CHICAGO MEDICAL SOCIETY.

Special Meetings, August 11 and 18, 1879.

DR. NORMAN BRIDGE, PRESIDENT, IN THE CHAIR.

THE subject for discussion was,

THE SUMMER INTESTINAL AFFECTIONS OF CHILDREN.

DR. WM. E. CLARK thought the intestinal disorders of infancy, of summer time, were chiefly diarrhoeas due to indigestion and inflammations resulting from this condition. Cholera infantum was, in his belief, of very rare occurrence indeed.

DR. H. WEBSTER JONES said, to the prostrating effects of heat must be charged many of the intestinal affections of children in summer time. The excessive heat produced a depression of the nervous centres. He thought the habit among people was to dress babies too warmly in summer. Care should be taken to cover the whole body, and warmly, especially at night, when a chill was sometimes experienced by exposure of a part; but so much covering as to induce constant sweating, as was frequently the case, was to be discountenanced. The direct rays of the sun should be avoided. The abdomen might, during diarrhoea, be covered at night with a flannel bandage. Even adults were often benefited by this procedure when subject to diarrhoea. The eruption of the teeth was one of the influences capable of irritating the nerve-centres and inducing grave intestinal derangements. Free lancing of the gums, whenever this cause seemed in operation, was called for. His habit was to cut deeply if the eruption of the teeth seemed imminent; if not, to scarify thoroughly and induce free bleeding.

Infants in summer time should have freely of cool drinks—water—whether they were sick or not. Even when vomiting frequently he would give small drinks. The physician should always see the passages from the bowels of a child sick with any intestinal derangement. Frequently food would be discovered that had been eaten several days before. He had found in fecal dejections seeds of fruit that, if parents were to be believed, had been eaten nearly a week before. Children should generally not eat the fruits from city markets. Those with seeds were always objectionable on this account, and the fruits furnished by city dealers were generally stale and acescent, and would disarrange the bowels of child or adult with delicate digestion.

Many children were unable to take milk; it habitually disagreed with them. With such it should be eschewed. Many who could not take plain milk were able to take condensed milk.

He was satisfied that at times the Chicago water was bad for sick children; whether it was due to

some contamination from the city sewers he could not say, but thought unlikely. Beef-tea for children should be very weak; in a concentrated state it did more harm than good.

For treatment when the bowels had been emptied of undigestible food, and the passages were still acecent, he had found nothing so good as a powder of one-sixth to one-eighth gr. calomel, one-quarter gr. bicarbonate sodium, one-half gr. subcarbonate of bismuth; one powder to be given every four to eight hours. Six to eight powders would generally induce less frequency of, and more normal passages. There never failed to be a slight rise of temperature and increase of thirst on the passages becoming less frequent.

On being asked his treatment of cholera infantum, he said he would treat it like cholera in the adult. For this he regarded calomel and piperine as the most valuable medicines.

DR. C. W. EARLE thought, in the management of the diseases under discussion, medication was useless without proper feeding. The most frequent of these disorders was simple non-inflammatory diarrhoea, due to improper feeding, cold, or dentition; this, if not relieved early, passed into an inflammatory state, namely, enterocolitis. It was the latter that almost alone caused the mortality. Not all sick babies could take the same kind of food. Barley-water and oatmeal-water agreed with most. Theoretically, fats were unadapted, yet practically they frequently agreed perfectly. When curd was voided undigested, milk should be wholly withdrawn for a time and rice-water substituted, or a little cream, sugar, and salt.

Medicines were not of much value. Chalk mixture was to be recommended. He would use alteratives sparingly.

What was to be done for a child at the breast of a healthy mother, the child having ten to fifteen green passages daily? Such cases were frequently encountered.

DR. T. P. SULEY thought it of great importance, in beginning treatment, to empty the bowels thoroughly by a cathartic. Some of the agents known as anti-ferments worked well to prevent decomposition of food and acecent discharges. He thought rides upon the lake very beneficial. For cholera infantum proper he suggested the use of ergot hypodermically.

DR. A. H. FOSTER had found that seventy-five per cent. of his cases of bowel troubles among children during the present season had occurred during the last week of June and the first week of August, when there was a succession of hot days. The most vigorous children got sick first—the weakly ones came down later. The stout ones sickened earliest because they took more exercise, were more exposed, and became more fatigued. Heat was the great cause of the disorders under consideration. He had found many of the diarrhoeas to be complicated with malarial disorders, and this most in parts of the city where there were no sewers. He related a case of a sick infant for whom a cow was kept to supply milk, but the milk disagreed as long as the animal was kept to grass, but was borne well as soon as she was put permanently in stable and fed on hay and grain. He thought beef-tea was much inferior to mutton-tea, and condensed milk was much preferable to ordinary cow's milk. Weak solution of white of egg in water was a proper diet for many cases.

He objected to preparations of chalk mixtures in which cinnamon entered as an ingredient. The latter often contained irritating oils that would burn the lips of even an adult. A better way was to use sub-

carbonate of bismuth and prepared chalk in powder, which could be readily shaken up with milk.

DR. E. W. LEE called the attention of the Society to the value of suppositories of iodoform, belladonna, and opium, for the diarrhoea and tenesmus attending many of the bowel troubles that had been spoken of. He knew nothing that would quiet the diarrhoea and tenesmus so quickly, surely, and harmlessly, as this remedy. For a child a year old he would use in each suppository 1 grain iodoform, $\frac{1}{2}$ grain extract belladonna, and $\frac{1}{4}$ grain opium.

DR. J. S. KNOX thought alcoholic stimulants were of much more value than the remarks of members would lead one to think. He knew of no single remedy so valuable for the depression and diarrhoea among children of hot weather. He would use it freely, to the extent of several ounces of brandy or whiskey daily, if it seemed to be called for.

He thought milk would agree much better with infants if a little starch and salt were mixed with it. Salt he thought much better than sugar. Salt was a great aid to the digestion of casein, and starch prevented its coagulation into chunks of curd.

For entero-colitis he used large injections of bismuth suspended in milk, with considerable benefit.

THE PRESIDENT remarked, in reply to an inquiry of Dr. Earle as to the cause of the frequent and green passages of infants nourished by healthy mothers, that he believed the whole trouble lay in the taking of too much milk by a child that was slightly feverish and simply thirsty. These babies, by the depression of the heat or otherwise, got slight indigestion and became a little feverish; as a consequence they were thirsty, and cried and worried a great deal. They were fed enormous (to them) quantities of milk simply because they were thirsty, and must take this fluid or nothing. These children were not hungry, as they constantly appeared to be, but only thirsty. Stop their food, and give them water with a very little whiskey, and they would improve rapidly.

DR. E. INGALLS thought cases of summer diarrhoea of children were so various that no routine treatment could be given. Hot weather, to be harmful, must be continuous for several days. If half the day was cool, little harm would be done.

He thought the best treatment generally was cathartics to empty the bowels, small doses of opiates, and abstinence from food.

He thought children often did as well on artificial food as on mother's milk; it was not true that the only food for a baby was mother's milk. He would much sooner risk feeding a child from the bottle—if it could be properly attended to and nursed—than have it fed from the breast of a mother in ill health.

DR. H. M. LYMAN gave a concise account of the pathology of the different forms of bowel affections which attracted marked attention.

There had been less real cholera infantum in Chicago since the streets had been so thoroughly sewered; there was less of it among the acclimated population than among new-comers.

In cases of real inflammation the proper treatment was mild purgatives. Calomel in small doses was the best. If there was an acid state of the dejections due to decomposition, alkalies should be given.

DR. C. W. EARLE spoke of a brief experience with the use of kumys in bowel derangements and when other food was with difficulty digested. His experience had been favorable.

DR. D. W. GRAHAM related one case in which he had used kumys. It was in a baby who had for many weeks had indigestion and diarrhoea. Emaci-

tion was considerable. It had frequent, but no natural passages. From the hour it began to take kumyss in small doses it became quiet; the passages became natural, and showed—what had not existed before—an absence of undigested food. So far (two or three weeks) any attempt to return to the use of the food formerly taken was followed by a disturbance of the bowels and the passing of undigested particles.

Correspondence.

CASE OF FRACTURE OF THE FEMUR TREATED BY IMMEDIATE EXTENSION FORCE ON THE DISTAL FRAGMENT.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Willie Bucher, aged 14 years, at a "picnic," August 26, 1878, clung to a scup, doubleseated and having some persons in it. The scup having oscillated a few times with considerable velocity, the lad tried to get off from his clinging position. But when his feet came to the ground the scup overtook him and hit him on the anterior aspect of the left thigh, fracturing the femur at junction of middle and upper third, with a loud report. He was conveyed in a wagon home. I found the patient in great agony, the thigh in a deformed and somewhat swollen condition, with the distal fragment overlapping anteriorly. I procured speedily bandages, cotton-batting, four short, light wood splints, and some adhesive plaster; then extended and coaptated the fragments, and applied a piece of adhesive plaster on each side of the thigh, each piece being about one-third the circumference of the thigh at the point of fracture, diminishing in width down to a point four inches beyond the knee, and then overlapping them so as to form a loop below the knee to receive a piece of thin board three inches square. The adhesive straps being snugly applied, the splints, well padded with cotton batting, were applied. The widest one—for the thigh to rest upon—placed posteriorly, from the tuberosity of the ischium to the hock; another on external aspect, from a little above the hip-joint to the knee; another on internal aspect, from ramus of ischium to the knee; the other on anterior aspect, from groin to upper edge of patella; then all were tied snugly in place at four different points with pieces of narrow bandage, and a couple of narrow strips of adhesive plaster placed around them. The edges of approximating splints were separate from each other about an inch, and each tapered—becoming narrower—towards the knee, so as to correspond somewhat with the circumference of the thigh at its various points. Then a bandage was snugly applied from the instep to the groin—making some allowance, as regards tightness, for the swelling of the thigh which might be expected to ensue. The patient was then placed in a narrow bed—properly prepared—to the footboard of which was fastened a piece of thin and narrow board, a little thicker and wider than an ordinary wall-lath, which extended about eighteen inches above the level of the prepared mattress. Around this lath was placed an india-rubber ring. Through this ring and through the loop at the knee—with the square piece of board in it—was passed a piece of bandage, the ends of which were tied so as to make the strip of bandage tense enough to stretch the rubber ring; and also to make considerable traction on the adhesive-plaster strips on the thigh. This

piece of bandage was kept tense in a direct line with the thigh placed in a normal attitude, the patient being in a supine position. A greater degree of traction was required the first two weeks than afterwards. By this tension, through means of the adhesive plaster, the muscles, fasciae, and integuments of the thigh were kept conservatively close to the fractured ends of the fragments, and the muscles were thus gently persuaded to discontinue contraction, or twitching. When the lad was completely fixed, he changed his previous tune of crying to whistling and singing, to alleviate his mother's bewailing. As the swelling of the thigh assuaged, the splints were tightened snugly around the thigh; at the end of the third week they were removed and a plaster splint put on the thigh. Extension was continued as hitherto; for the plaster, in the course of a week, became too easy a fit—from the shrinkage of the soft tissues, I suppose.

Counter-extension was procured in the usual manner, by elevating the foot of the bed by a brick placed under each of the two posts.

The extending force was somewhat similar to that in general use in such cases, and known as Buck's extension method, only that it was used at a comparatively higher level than is usual, and that it was used to make traction immediately on the lower fragment, instead of through the ankle, the leg, and the ligamentous tissues, and muscular attachments around the knee-joint, which is the usual mode.

The points of advantage by the method of immediate application of extension force to the lower fragment were recognized to be the following: 1st, collateral support to the soft tissues around the fractured ends of fragments; 2d, less force was requisite, as there was no loss of force, it being used immediately on the fragment; 3d, the direction of the force could be more accurately adjusted, as the rubber ring could be elevated or lowered, or the thigh could be elevated or lowered towards the knee quite readily; 4th, the limb, from the condyles of the femur down to the foot, were left quietly unconcerned; 5th, the thigh was the only part of the patient that it was requisite to keep in a permanently fixed or stationary condition. It may be conceded that these points are of considerable importance in treatment of an injury so serious, and which requires confinement to the bed for several weeks.

Now for the question in regard to the result: The answer is, a perfect result—no shortening, no lameness. He resumed his attendance at school when it opened after the Christmas vacation; and when the ground had become unfrozen he could walk and run in the same fleet manner as before the accident. His is the fourth case of fracture of femur treated after the same plan by me, and reported in the RECORD. The first of said cases was one of gunshot fracture, Minié-ball penetrating the femur at the greater and lesser trochanters (reported in THE MEDICAL RECORD, Vol. I, No. 20, p. 466); the second and third cases were simple fracture of femur in children (reported in RECORD, Vol. XIII., No. 5 (whole No. 378), p. 95). Respectfully,

W. M. DORRAN, M.D.

MOUNT VERNON, N. Y., August 19, 1879.

EDISON'S STETHOSCOPE.—Edison states that he is experimenting on a stethoscope with every prospect of success. It will, however, be too expensive for general use.

RHUS-POISONING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—There is an article in the RECORD for August 2d, also in the *Michigan Medical News* for July 25th, upon the treatment of rhus-poisoning. From the numbers of articles lately contributed upon that subject, there must be an increasing interest in its treatment.

During a long practice in the country, I had much to do with this form of poisoning, and, like many others, had some trouble in treating it until I used the sulphite of soda, and now have almost no trouble in its treatment. Cover the parts affected with soft cloths, and keep them wet with a saturated solution of the salt in distilled or rain water, adding such additional treatment as may be indicated in each particular case. I have no theory as to the nature of the disease, or the action of the remedy. I was induced to try it in these cases from my success with it in the various forms of erysipelas.

While writing the foregoing, I call to mind that in a very brief article in the "Archives of Dermatology," Vol. IV., No. 4, page 820, I recommended the sulphite of soda for rhus-poisoning. In Vol. V., No. 111, page 227, and onward in that journal, there is a systematic article, by Dr. Roswell Park, of Chicago, Ill., upon the rhus family, its poisoning, its treatment, etc., in which a number of remedies are suggested, but the soda sulphite is not among them. I dislike to call attention to the same remedy the second time, but as it appears to have been overlooked, will offer it again for what it is worth.

A. G. SMYTHE, M.D.

BALDWIN, MISS., Aug. 20, 1879.

A WOUND SEVERING THE LARYNX
AND OESOPHAGUS.COMPLETE RECOVERY, AND SUBSEQUENT DEATH FROM
HANGING.

TO THE EDITOR OF THE MEDICAL RECORD.

Dear Sir:—The following may be of interest to many of your readers:

CASE.—Wm. Barret, American, born in Ohio, æt. 32; strong and well built; living in the country about three miles from Sigourney, Keokuk Co., Iowa; while in a temporary fit of insanity attempted suicide on Oct. 10, 1878, by cutting his throat with an ordinary razor. He was discovered in the act, but was not arrested before he had, by repeated desperate cuts, severed not only the larynx, but the oesophagus. The wound was in the thyro-hyoidean space, about three inches in length, and extended back entirely through the larynx and oesophagus, and brought into perfect view the vocal cords. The hemorrhage was at first quite profuse, and faintness soon rendered him manageable. He was laid upon a bed, and Dr. S. D. Cook, of Sigourney, a very competent surgeon, to whose skill and tireless attendance the results in this case are largely attributable, was hastily summoned. The hemorrhage had very materially lessened by the time the doctor arrived, and was without difficulty controlled by torsion and pressure. The wound was cleansed and the patient placed in an easy position for respiration, which function was performed entirely through the severed larynx.

I was summoned to assist in the case on the succeeding day, and arrived with Dr. McWilliams, of Sigourney, at about 11 A.M., Dr. Cook being present

with patient. Found patient quiet and apparently comfortable, saye when free amounts of mucus clogged up the larynx.

Guided by the index-finger in the wound, we were able, after some trouble, to introduce the tube of a stomach-pump into oesophagus and stomach. Using this as a guide, I with much trouble succeeded in introducing two sutures into the walls of the oesophagus, embracing its mucous coat, which seemed sufficient to maintain them in apposition. The lateral and anterior parts of the larynx were brought well together by deep interrupted sutures, which were made to embrace the fibrous coatings of the thyroid cartilage and hyoid bone. The wound was further closed by short strips of adhesive plaster, and his head tied firmly forward, with the chin well upon the superior part of the sternum. Before withdrawing the tube, we pumped into his stomach one and a half pints of good nice soup, the first nourishment or fluid that he had received or attempted to take since the accident.

For forty-two days ensuing he was sustained by nutritive enemias, save once when a small amount of soup was injected through a large-sized catheter into the stomach, his condition being that of a well-nourished person. After this time, for the space of about two weeks, he was fed by injecting soup into his stomach every day, or on each alternate one, as the doctor found it convenient to visit him, the enemias being continued. Subsequent to this latter period, however, he began to be able to swallow water and soups, not without some difficulty, as not infrequently some parts of those substances would be regurgitated or forced out through the external wound, which it had been impracticable to keep well closed by the suture before mentioned. As soon as he began to indulge in the acts of swallowing, the regular use of oesophageal bougies was commenced. The patient soon learned to introduce them himself, and was shortly able to dispense with them entirely.

The external wound was entirely healed about Jan. 1, 1879, while the one between the larynx and oesophagus gave evidence of being patent until about the 10th of the same month. His voice was but slightly, if at all, affected. The injections were generally well tolerated, and when not so, small amounts of morphine and lactopeptine were combined with them. The morphia was sometimes essential to control his inordinate thirst or hunger. His recovery was regarded by all as marvellous and complete, and he had resumed labor upon his farm when, on the 10th of Feb., 1879, eluding the vigilance of his friends, he hanged himself. No post-mortem examination was made or allowed.

This case is interesting chiefly in showing:

First.—Recovery from a wound which some surgeons had declared as necessarily fatal, claiming that it was impossible for these tubes to be thus divided without severing some of the large vessels and nerves of the neck. No ligatures were applied, nor were any important arteries cut. The hemorrhage, which was somewhat troublesome during the first closing of the wound, appeared to be from a branch of the superior thyroid and, perhaps, also one of the branches of the lingual, was readily arrested by torsion and pressure. The coats of the left carotid were exposed in the wound, so near had it come to being cut or severed. There was no troublesome oedema of the glottis or vocal cords, nor any inflammation of the bronchi, which was carefully guarded against by keeping the air of his room moistened and at a somewhat elevated temperature.

Second.—As showing how completely the demands

of nature for nourishment and drink may be answered by injections of these substances into the rectum.

Third.—In demonstrating how utterly inefficient, for the closure of a wound of this extent, are the directions usually given in most of our text-books. Neither the coarsest ligature, silk or wire sutures, would much delay the reopening of the wound from the cutting of the sutures in the tissues. Bands of common adhesive plasters placed about the neck above and below the cut, and the lower tied to a head-band, while the upper one was tied to a band about the body beneath the axilla, answered the indications as well as anything used; but this dressing was essentially a failure.

I now think that in another case I should not hesitate to insert a silver wire through the thyroid cartilage and pass it about the hyoid bone, and thus forcibly retain the parts in due apposition.

D. SCOFIELD, M.D.

WASHINGTON, IOWA, July, 1879.

EXOPHTHALMIC GOITRE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The very instructive clinical lecture upon exophthalmic goitre, by Prof. Jacobi, in the RECORD of the 5th inst., reminded me of how little instructive literature there is upon the subject, and induces me to report a case I have been treating the last few months:

Miss —, aged 34, teacher; nervo-bilious temperament; family history excellent, and life until twenty-nine years old most vigorous.

I took no notes of the case at the time of examining it, so, when determined to report it, addressed by mail a series of questions to the patient for the purpose of obtaining a correct and as complete a history as possible up to the time she came under my observation.

She says, in substance: "In 1874 I was engaged in teaching, and had entered into engagements to go to Persia to take charge of a female seminary; and to better fit myself for the position, determined to obtain some knowledge of scientific medicine, and devoted every moment I could possibly spare to this study, retiring at eleven and rising at four to five o'clock, to study before breakfast. Taught a large and interesting Sabbath-school class on Sundays.

"In May (1874), having already become very sleepless and lost all relish for food, I noticed, when extending my hand, that it trembled, that my fingers trembled all the time, unless supported—no jerking, a steady trembling—which gradually and constantly increased; and I soon noticed my feet trembled. It was observed I was losing flesh. About the first of June large styes appeared upon my eyelids, which compelled me to stop work and study. The trembling increased, and in the latter part of June a large abscess appeared upon my cheek.

"Was troubled at this time with a profuse disagreeable perspiration, requiring a towel to dry my face, hands, and arms. In July, the glands (evidently the thyroid) of my neck enlarged, and my eyes appeared unnatural. The physicians said my eyes appeared larger and brighter, owing to my loss of flesh and paleness. My pulse was 120 to 180. I took iron, quinine, and bromide of potash, and my appetite and strength improved for a short time; but I continued uninterruptedly to grow worse in all other respects. The menses grew less, and ceased in August for seven months. I began to have paroxysms of irregular action of my heart, with a burring noise in my neck, which, with appetite, strength, and all

the other symptoms, gradually and continuously grew worse. I was so sleepless that I sometimes thought I never should sleep again, and when I did, perspired so profusely that I was completely exhausted upon awaking. Continued to grow worse until January (1875). Had been taking tonics all the time, and aloe and salt-water baths a part of the time, and electricity had been applied to my spine a number of times with markedly injurious effect. At this time was too weak to stand; pulse so rapid that the doctor could not count it at times, but usually 140 to 160. No one believed I could live two months. In January plan of treatment was changed, and I took digitalis, quinine, and powders of chlorate of potash, and some kind of pills every night. Have at no time suffered any pain anywhere. My neck was enormously large, and my eyes (not inflamed) protruded so that they almost seemed to lay upon my cheek.

"In March was some better, stronger, and menses appeared. Was advised to go away for change. Was injured thereby, and returned in a month. Again improved, and in May could walk a little again; but in June, the weather having become oppressively warm, I grew worse, and in August menses again ceased until December following. During September the doctor concluded my disease was a form of chorea, and froze my spine with atomized sulphuric ether five times. During following winter and spring, 1876, was better, but worse again in summer. Discontinued medicine in March, because it seemed to have lost its effect upon me. Took nothing for several months, and remained in about the same condition.

"Then went to a lady, who gave me sixteen 'electrical baths' and 'a homeopathic remedy for each symptom.' Improved rapidly, and very soon could sew a little and do light housework. Came to Utah in following November, 1877, and since have worked hard at teaching continuously, except from 28th of last December to 24th of February, during a part of which time I was in Salt Lake City under your daily observation. During all that interval the symptoms all continued, but in a mild degree. In October I noticed I was more nervous, sleepless, with less appetite, and felt very weary all the time.

"In middle of November began again to suffer violent paroxysms of irregular action of my heart and a burring noise in my neck; also to suffer (as I had not before) from a severe pain in my back and in front of each hip; also violent cramps in my feet and ankles."

January 12, 1879, Miss — came to Salt Lake City and consulted me. Found her suffering from exophthalmic goitre, subacute inflammation of ovaries, and spinal irritation. Had been during the last year teaching a mission school of from thirty to sixty-five pupils in one of the neighboring settlements, under as unfavorable sanitary conditions as it is possible to conceive of—as regards overcrowding, ventilation, inconvenience of arrangement, etc.—duties very arduous for a healthy person under favorable sanitary conditions.

Present condition.—Temperature under tongue, 99°; pulse, 130 to 140, when not excited. No appetite; bowels torpid, and feces dry and hard when passed. No trouble in digesting the food taken; kidneys acting normally. Skin moist, and perspires with preternatural freedom and profuseness, she reports. Menstruates regularly, but suffers unusually constant, severe pain in back, hips, and ileo-pelvic region; soreness upon pressure in region of ovaries; exquisite tenderness over eleventh and twelfth dorsal vertebra; frequent, very severe cramps in feet and ankles; pain

and numbness along sciatic nerves; cannot sleep more than three or four hours in the twenty-four; eyes protruding so that lids can scarcely close over them; thyroid gland enlarged to four or five times its normal size; fingers, when not resting upon some support, tremble quite violently; severe paroxysms of irregular action of the heart, almost to syncope.

Prescribed rest of body and mind, complete as possible; a two-grain pill of monobromated camphor at bedtime every night.

B. Quin. s., zinci ox., digitalis fol., $\mathfrak{ss}$ gr. xxiv.; aloine, ex. bellad., $\mathfrak{ss}$ gr. iv.; pulv. ipecac., gr. ij. M. Ft. pil. No. 24. Sig. Take one three times daily, an hour before meals.

One pill zinci phosphide et ex. nux vom. (Hammond's), three times daily, immediately after meals.

B. Unguent. atropia, unguent. iodoform. (3 i. to 3 i.); chloroform, 3 i.; ol. lavend., gtt. q. s. M. Ft. unguent. Sig. To be applied freely twice daily over tender ovarian region.

B. Liniment. capsici (B. P.), applied freely every day to spine from nucha to sacrum.

Emplast. bellad., 8x6 in., to be worn continuously over tender part of spine.

Marked improvement commenced immediately. On account of toxicological effect of bellad. induced, I was soon compelled to reduce the proportion of atropia in the ointment to gr. iv. to the two ounces of ointment.

At the end of two weeks slept and ate well. Paroxysms of irregular cardiac action mild, and not more than once daily. No longer annoyed with the burring sound in neck. Pulse, 90 to 100. Pain in the back slight, and but a part of the time. Pain and numbness along sciatics and cramp of feet and ankles no longer felt at all. Trembling of fingers but slight; none of the feet observable. Profuse papular eruption along spine. Liniment to be suspended until eruption is healed, and then resumed a little less freely. Pill of monobromated camphor discontinued, as no longer needed.

For the two kinds of pills before prescribed, substituted the following as less troublesome:

B. Pulv. digitalis fol., quinia. s., $\mathfrak{ss}$ gr. xlvij.; zinci phosphidi, ex. nux vom., $\mathfrak{ss}$ gr. xij.; pulv. ipecac., gr. iij. M. Ft. pil. No. 48. Sig. Take one pill three times daily.

Progress of improvement continues entirely satisfactory in every respect.

On the 13th of February the patient left the city to return to the field of her labor, but with strict injunctions not to go into school or perform any other labor until strength should be fully restored, and free from all morbid sensations.

At this time the thyroid gland was reduced one-fourth to one-third. Eyes markedly less prominent. Not more than three or four paroxysms of irregular cardiac action in a week. Pulse, 80. No spinal or ovarian tenderness.

Notwithstanding my strict injunctions, Miss — commenced teaching her school on the 24th of February. Reported to me a few days after, that "the only signs of disease present were prominence of the eyes, enlargement of the thyroid gland from one-half to two-thirds its size in January, when I first saw her; an occasional mild paroxysm of irregular action of heart, and strength not quite up to normal standard." She has continued the pills of digitalis and the phosphide, which has enabled her to labor hard continuously up to present time without losing, and I think she has not gained flesh.

The following is her present report: "Sleep re-

markably well—as well as I ever did in childhood. Appetite excellent. Trembling of my fingers so slight that I do not observe it for several days sometimes. The irregular action of the heart does not occur more than three or four times a week, and then very slight. My pulse 80 when I take the medicine, but when I stop it runs up to 90 or 95, and I do not sleep quite so well. My friends remark the improved appearance of my eyes. I have not been so free from all the symptoms of the exophthalmic goitre since I was first attacked. I have fifty pupils in the day-school and forty in my Sabbath-school class, and am still teaching in the old building."

I will make but two reflections: first, I have no doubt the patient would have been entirely cured before this time if she had refrained from taxing her strength; and, secondly, I believe an application of the constant (galvanic) current would have been eminently beneficial.

GEO. C. DOUGLAS, M.D.

SALT LAKE CITY, UTAH, July 20, 1879.

New Instruments.

INSTRUMENT FOR SHAVING ICE FOR HOSPITALS.

By WILLIAM F. HUTCHINSON, M.D.,

PROVIDENCE.

ABOUT six months ago my friend Capt. Henry F. Jenks, a well-known inventor of this State, was in close attendance upon his sick wife in Pawtucket. Fever was running high, and Dr. Clapp had ordered iced drinks repeated frequently. About the middle of the night the supply of broken ice gave out, and the captain went down to the refrigerator in the cellar for more. After half an hour's hard work, he succeeded in shaving up a tumblerful with a big knife, expending, during the operation, large quantities of patience and ice, some vigorous language, and a piece or two of his left hand.

Returning to his post, his inventive brain set in motion that portion of its convolutions which have control of the ice-scraping function, and the handy little tool pictured herewith was the result.



With it one can noiselessly and easily fill a tumbler with powdered ice in three minutes, by holding the lump in place with one hand, and scraping with the other. I have employed it very frequently in sick-rooms, during the past summer, and commend it to the profession as a very valuable labor-saving machine in a small way.

The instrument is made of malleable iron, shaped as seen in the cut, with a cutting face of steel, set as is the knife of a hand plane. A handle projects from one side, and, when used, the lump of ice is steadied by one hand while the scraper is drawn over its surface. The box or hopper is filled rapidly and with scarcely any exertion. The whole instrument weighs about four ounces, and is about five inches in length, inclusive of handle. I often carry one in my pocket.

Obituary.

CLEMENT A. FINLEY, M.D., U.S.A.

CLEMENT A. FINLEY, formerly Surgeon-General of the U. S. Army, died on Monday, Sept. 8th, at his residence, No. 5 Woodland Terrace, Philadelphia, in the eighty-second year of his age. He was born at Newville, Cumberland Co., Pennsylvania, in 1797, and was a son of Samuel Finley, a major in the Virginia line during the Revolutionary War, and who was receiver of public moneys from the sale of public lands during the administration of Washington. Dr. Finley was educated at Washington College, Pennsylvania, and studied medicine at the medical college of Chillicothe, Ohio, graduating from that institution in 1818. In that year he entered the United States army as surgeon's mate of the First Regiment of Ohio Infantry, stationed at Baton Rouge, Louisiana. He subsequently filled the position of assistant surgeon, and was medical director in the field in the Black Hawk, Seminole, and Mexican wars. He passed eight years on the frontiers in Arkansas, Louisiana, and Florida, accompanying the commands that established Fort Leavenworth, Jefferson Barracks, and Fort Gibson, and was a member of one of the earliest expeditions to the Rocky Mountains, *i. e.*, that organized in 1834. In 1861 he succeeded General Lawson as Surgeon-General of the United States Army. In 1862 he was retired from active service, on his own application, after having served forty-four years. The commission of Brevet Brigadier-General was bestowed upon him by President Lincoln, in reward for his long and faithful services. Dr. Finley married, in 1832, Elizabeth, daughter of Dr. Samuel Moore, who was at that time Director of the United States Mint, and formerly a member of the Lower House of Congress from Bucks Co., Pennsylvania.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from August 17 to August 23, 1879.

JANEWAY, J. H., Major and Surgeon. Assigned to duty as Post Surgeon, Fort Columbus, New York Harbor, and Attending Surgeon, Headquarters Military Division of the Atlantic. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

SMART, CHARLES, Capt. and Asst. Surgeon. Relieved from duty in the Department of the East, and to report for temporary duty to the President of the National Board of Health, Washington, D. C., for chemical and microscopical work. S. O. 204, C. S., A. G. O., Sept. 4, 1879.

VICKERY, R. S., Capt. and Asst. Surgeon. By direction of the Secretary of War, the operation of so much of Paragraph 8, S. O. 195, A. G. O., Aug. 25, 1879, as relates to this officer, is suspended until Oct. 4, 1879. S. O. 208, C. S., A. G. O., Sept. 9, 1879.

STEINMETZ, W. R., Capt. and Asst. Surgeon. Having been found by an Army Retiring Board incapacitated for active service, is, by direction of the Secretary of War, granted leave of absence until further orders, on account of disability. S. O. 209, C. S., A. G. O., Sept. 10, 1879.

TURBELL, H. S., Lieut. and Asst. Surgeon. Assigned to temporary duty as Assistant to the Attend-

ing Surgeon at Headquarters, Mil. Div. of the Atlantic, and to the Post Surgeon, Fort Columbus, New York Harbor. S. O. 58, Mil. Div. of the Atlantic, Sept. 5, 1879.

BANISTER, J. M., Lieut. and Asst. Surgeon. Relieved from duty at Fort Leavenworth, Kan., and assigned to duty at Fort Reno, Ind. Territory. S. O. 171, Dept. Missouri, Sept. 13, 1879.

NAVY NEWS.

List of Changes in the Medical Corps in the Navy from August 20 to August 30, 1879.

August 20th.—Medical Inspector P. S. WALES, appointed Surgeon-General U.S.N., and Chief of Bureau of Medicine and Surgery, Navy Department, vice Surgeon-General J. W. TAYLOR, retired.

August 21st.—Surgeon ADRIAN HUDSON, appointed Assistant to the Bureau of Medicine and Surgery, vice Surgeon J. B. PARKER, detached and placed on special duty temporarily.

August 22d.—Surgeon A. A. HOCHLING, ordered to special duty at Washington, D. C., attending officers of the Navy and Marine Corps, vice Medical Inspector P. S. WALES, detached.

August 26th.—Pd. Asst. Surgeon J. R. WAGGENER, detached from the Passaic and ordered to the Nautical School-ship St. Mary's, vice Pd. Asst. Surgeon B. F. ROGERS, detached and ordered to the Michigan.

August 26th.—Pd. Asst. Surgeon H. P. HARVEY, ordered to the U. S. Receiving-ship Passaic, Washington, D.C.

August 27th.—Assistant Surgeon DANIEL M. GUITERAS, ordered to the Powhatan, vice Asst. Surgeon RICHARD ASHBURIDGE, detached and granted three months' leave.

August 28th.—Pd. Asst. Surgeon H. AULICK, detached from the Naval Hospital, Mare Island, Cal., and ordered to the Tuscarora, vice Asst. Surgeon M. H. CRAWFORD, detached and ordered to the Receiving-ship at Mare Island, Cal.

August 29th.—Medical Inspector WILLIAM M. KING, ordered to the U. S. S. Shenandoah, and as Fleet Surgeon of the South Atlantic Station.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 13, 1879.

Week Ending	Typhus Fev.	Typhoid Fev.	Scarlet Fev.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fev.
Sept. 6, 1879.	3	16	35	0	14	14	0	0
Sept. 13, 1879.	0	17	23	1	19	15	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis, from September 10th to September 15th inclusive, was 87, and the number of deaths that occurred was 44. The total number of cases for this year to September 16th is 1,182, and the total number of deaths 376.

HAVANA.—Latest advices from this city show that during the past week there was a decrease of 13 in the mortality from yellow fever. The number of deaths in the previous week was 65.

DR. WILLIAM A. HAMMOND.—Upon the recommendation of the Secretary of War that the findings and sentence of the general court-martial in the case of Surgeon-General William A. Hammond, referred to in an Act of Congress, approved March 15, 1878, be annulled and set aside, the President of the United States, R. B. Hayes, has, in accordance with the authority conferred by the act, ordered and the General of the Army, W. T. Sherman, has commanded that the name of William A. Hammond be entered upon the retired list of the army as Surgeon-General, to date from August 27, 1879.

HYPODERMIC INJECTION OF MORPHIA.—Dr. H. H. Kane, who has, for some time past, been collecting statistics on the hypodermic injection of morphia, would consider it a great favor if members of the profession who see this, and have had experience with the instrument, will answer the following questions:

1. What is your usual dose?
2. Do you use it alone, or with atropia?
3. What is the largest amount you have ever administered?
4. Have you had inflammation or abscess at the point of puncture?
5. Have you had any deaths or accidents caused by this instrument?
6. Do you know of any cases of opium habit thus contracted?

Where there has been an autopsy (5) please state the fact and the results obtained therefrom. All communications will be considered strictly confidential, the writer's name being used only when he gives his full consent thereto. Address all letters to Dr. H. H. Kane, 866 Bleecker Street, New York.

THE PENNSYLVANIA STATE HOSPITAL COMMISSION.—The members of this Commission, which was appointed by the Legislature to select a site in the Schuylkill coal regions for the erection of a hospital, where miners and others connected with the coal mines can receive such medical attention as may be necessary, met at the Girard House, Philadelphia, on Sept. 2d. The bill provides that the land upon which the hospital is erected shall be given free of cost, and that the State shall appropriate \$60,000 for the building. The money is now ready, and the Commission will receive proposals for the site until the 18th inst. The probabilities are, however, that the hospital will be built at Pottsville. The Commission is composed of D. A. Beckley, chairman, Bloomsburg; J. R. Eby, Harrisburg; John W. Morgan, Shenandoah; T. F. Kerns, Pottsville; Gen. Wm. Lily, Mauch Chunk; William James, Shamokin. The Commission have invited to accompany them in their visits to the various hospitals, Dr. A. H. Halberstadt, Pottsville; L. A. Lush, Schuylkill County, and L. R. Keefer, Schuylkill County. The only institutions that they visited in Philadelphia were the Pennsylvania Hospital, Hospital of the Jefferson College, Presbyterian Hospital, and Hospital of the University of Pennsylvania.

PHYSICIANS AT HOME.—We congratulate Drs. For-dyce Barker, E. G. Loring, C. R. Agnew, H. F. Walker, and Geo. M. Beard, on their safe arrival from Europe. They come refreshed for the active labor of the winter campaign.

ESERINE IN GLAUCOMA.—This drug has recently been much extolled for its beneficial effects in glau-

coma. Dr. M. Landesberg, however, in the *Philadelphia Medical Times*, cites nine cases where he had used it, and with undoubtedly injurious results. He concludes that it is not only an unreliable and worthless, but even a dangerous agent in glaucoma, since its primary results may lull the physician into a delusive security.

REPLANTING OF TEETH.—Dr. J. N. Prather, of San Francisco, Cal., writes: I notice in the August number, page 144, your paper, that "Dr. Thompson, of San Francisco, is now in London showing the profession there his new method of replanting teeth." That the minds of your readers may be further enlightened, I will state that replanting teeth is no new discovery, but has been practised more or less for ages. But the profession considers the replanting of teeth very impracticable, except in isolated cases. When a tooth is extracted the nerve is severed, and death to the tooth is inevitable; when returned to its former position, if properly anchored, it may adhere as strongly as ever to the surrounding parts, yet a tenderness will almost invariably be felt in mastication; they frequently act as irritants and ulcerate at the apex, thus becoming disagreeable and offensive, the crown turns dark, and it is thought they are more susceptible of decay.

ANTI-VIVISECTION IN ENGLAND.—The feeling against vivisection in England has been stirred up till it has become dangerous to scientific interests as well as absurd from every sensible point of view. A bill was finally presented in Parliament for the total abolition of vivisection, and it was strongly urged from some quarters. It has recently received a quietus, however, being defeated in both houses. The vote in the House of Lords was 81 to 16.

VOMITING IN PREGNANCY—COPEMAN'S METHOD.—Dr. J. T. Baldwin, Professor of Anatomy in Columbus Medical College, reports three cases of the successful application of the above method. It consists in thoroughly dilating the external os and cervical canal with the finger. In one case almost every other measure had been previously tried, and abortion was being seriously considered. Upon dilating the cervix, however, the vomiting ceased at once.—*Ohio Med. Recorder.*

BOOKS RECEIVED.

ON ASTHMA: Its Pathology and Treatment. B. J. B. BERKHART, M.D. London: J. & A. Churchill, New Burlington Slip. 1878.

TRANSACTIONS OF THE OHIO STATE MEDICAL SOCIETY. 1879. Columbus, O.: Cott & Hann, Book Printers. 1879.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, M.D. Parts 3 and 4. E. B. Treat, 805 Broadway, New York.

A GUIDE TO SURGICAL DIAGNOSIS. By CHRISTOPHER HEATH, F.R.C.S. Philadelphia: Lindsay & Blakiston. 1879.

PHYSIOLOGY AND HISTOLOGY OF THE CEREBRAL CONVOLUTIONS, ALSO POISONS OF THE INTELLECT. By CHARLES RICHTER, A.M., M.D., Ph.D. Translated by EDWARD P. FOWLER, M.D. New York: William Wood & Co., 27 Great Jones Street. 1879.

ANALYSIS OF THE URINE, WITH SPECIAL REFERENCE TO DISEASES OF THE GENITO-URINARY ORGANS. By K. B. HOFMANN and R. ULTZMANN. Translated by T. BARTON BRUNN, A.M., M.D., and H. HOLBROOK CURTIS, Ph.B. New York: D. Appleton & Co. 549 and 551 Broadway. 1879.

Original Lectures.

CLINICAL LECTURE ON DORSO-LUMBAR MENINGO-MYELITIS FROM TRAUMATISM.

DELIVERED AT THE PHILADELPHIA HOSPITAL.

By CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

J. D.—, 38 years of age, was a hale, strong man until six years ago, when a part of the roof of a rolling-mill fell on him, burying under it the lower half of his body. He was unconscious for fifteen minutes. No bones were fractured. He did not leave his bed for five months. For three months he could not move his legs, which were anæsthetic. He suffered with terrible pain of a deep, boring character, low down in the back. This was increased by every movement. He could, to a certain extent, escape the pain by holding his spinal column in one position, but any attempts at flexion or rotation of his trunk caused him almost unendurable suffering. The pain in the back had a tendency to radiate upward and outward, rather than downward; but two weeks after the reception of the injury he began to experience sharp darts, which came at irregular intervals, first in the right leg, and a week or two later in the left. One peculiar symptom at this time also was a feeling as if he was being drawn downward in the bed. For five weeks his bladder had to be emptied with the catheter, and for six months after this his urine almost constantly dribbled from him. His bowels were paralyzed, and so remained until within a year. Three months after the accident he began at times to suffer with cramps at different points in the legs. I cannot learn anything of positive value from him in regard to reflex disturbances, but it is altogether probable that diminution, rather than excess of reflex action, was the condition present, as the latter could not fail to have attracted his attention. Soon after he was injured he had a small bed-sore in the sacral region, but this was healed without difficulty, and he has never had any since. His toe-nails have grown less rapidly than they did when he was in good health. He says that his sexual desires and powers have, so far as he can tell, remained natural; he has had two children since he became paralyzed. He has never had any eye symptoms, nor attacks of faintness, palpitation, or dyspnoea.

During the past three or four years, so far as I can determine, the changes which have taken place in his condition have not been very striking. At present he shows evidences in his face of suffering and confinement—of the want of fresh air and exercise; but otherwise he is in "good form" from his waist upward. His mental faculties are probably as strong as they ever were. Sight, smell, taste, and hearing are normal. His upper extremities show nothing wrong; sensation in them is perfect; they are thin, but not atrophied. The spinal column shows no tenderness to pressure or percussion, and no painful response is elicited by the application of ice, hot water, or a strong faradic current. He can bend his body well forward, but scarcely at all to the right or left, or backward, owing to a want of mobility in the lower half of the spine.

Many of the points so far elicited have been nega-

tive, but now, as in the progress of our examination the lower half of the body is reached, you have signs and symptoms of the most positive kind. In the first place, you observe that while, speaking broadly, both legs are paralyzed, but the left is more helpless than the right. With the latter he can perform certain large movements, as lifting the whole limb several inches from the bed, and partially flexing the thigh on the pelvis. The left is absolutely powerless. He cannot execute abduction, adduction, flexion, extension, etc., with either of the feet. All the toes are strongly flexed downward, and require much force to straighten them. Both legs are much wasted, degenerative atrophy being very marked below the knees; and the muscles here fail to respond to strong faradic and galvanic currents. Both feet are cold and have a purple, livid look, the coldness and change of color extending up on the right nearly to the knee. The tendon-reflexes are utterly abolished. I can obtain no response from patella, quadriceps, or elsewhere.

Dr. Harrison reports that his urine is alkaline, that it has a specific gravity of 1020, and contains neither albumen nor sugar, but an abundance of phosphates.

The sensory phenomena presented by this case are quite remarkable. He has not had the feeling of a cord or band around his waist, but sometimes has had some such sensation in the upper part of his right thigh. With the æsthesiometer I proceed to examine the cutaneous sensibility, first of the trunk, and then of the lower extremities. As I pass downward, pricking him with the sharp points, and inquiring whether one or more points are felt, you will notice distinct boundary lines between regions in which sensation is preserved and those in which it is partially or totally lost. The anterior, posterior, and lateral aspects of the legs can be mapped out into curious areas, according to the presence, absence, or diminution of sensibility. On the anterior surface, on the right side, partial anæsthesia begins about half an inch below Poupart's ligament; near the middle of the thigh the anæsthesia becomes total, and so continues to the toes; on the left side, in front, slight anæsthesia begins again just below Poupart's ligament, and this becomes more marked, but not quite total, from the lower third of the thigh downward. Having the patient turned over, and examining the posterior surfaces, I find that on the right side anæsthesia is total below an irregular line, beginning about the coccygeal region and trending down and across to the outside of the limb, near the junction of the upper with the middle third of the thigh; on the left side, anæsthesia is partial in the same general area, becoming more decided as the limb is descended.

Retardation of the conduction of sensation is a symptom also well shown by this patient. I prick the left foot very sharply, and find that it requires from five to six seconds for him to appreciate the sensation; on the right side it takes two seconds and a half.

Finally, he is unable to distinguish between sponges dipped in hot and cold water, showing loss of the sensation of temperature.

Before discussing the nature and the treatment of this case, I will show you another.

This second case is so similar, in many of its features, to the one on which I have just been lecturing, that it will be sufficient to call your attention very rapidly to the prominent manifestations, only dwelling upon points which were not presented by the last patient, or which are of peculiar interest.

Ten months ago the patient, an Alsatian, aged

thirty-six years, in attempting to get off the platform of a street car, with a barrel of whiting, was severely injured in the small of his back, having been struck both by the car and barrel. His history and symptoms since the injury may be condensed, as follows: Severe pain in the back for four weeks, after this gradually disappearing; paralysis of bladder and bowels, with occasional threatenings of cystitis, but this held in check by treatment; at rare intervals headaches; his mind clear, but fretful and irritable; his near vision not as good as formerly, but no other ocular or facial symptoms, and no involvement of other special senses; upper extremities show no paralysis of sensation or motion, but a little general deficiency in strength, with each hand registering only about 70° on the dynamometer; lungs and heart normal; his pulse, just taken, 72, and regular; his spine slightly prominent and very rigid in the lumbar region, but no tenderness; tendon-reflexes in the lower extremities abolished, but reflex twitchings produced by irritation of the skin outside of the areas of anaesthesia below the waist; sexual desires and powers entirely lost; both legs paralyzed as regards motion, and much wasted, especially below the knees; electro-contractility greatly diminished, and in some of the lower groups of muscles absent; both knee-joints so loose that the caps can be moved from side to side without any trouble; has had a large sacro-coccygeal bed-sore, eight inches by three and a half in dimensions, and extending equally on both sides of the median line; several smaller sores at points exposed to pressure; his feet are cold and livid, the toes in flexion and feet in abduction; since the injury all the toe-nails, except of the two large toes, fell off and grew in again; the soles and edges of his feet are in a scaly condition; urine, examined by Dr. Heller, alkaline, specific gravity 1022, very slight trace of albumen, and no sugar.

The sensory condition, in this, as in the other case, is sufficiently interesting to call for a little more extended consideration.

On the anterior surface of the right lower extremity I can map out for you a region of total anaesthesia, extending to and including the feet and toes, and bounded above by a line which begins just above the root of the penis, passes outward about an inch, then downward to the middle region of the thigh, and again outward to its external border. On the left anterior aspect the anaesthesia begins an inch or two below the knee. Behind, the anaesthesia, on the right, is below a wavering line running from the neighborhood of the anterior superior spinous process of the ilium to the sacro-coccygeal region. On the back of the left thigh is a zone of anaesthesia of peculiar shape. It is broad above, reaching across the gluteal region at about the line of the coccyx, but narrowing in its descent, until near the popliteal space, when it widens again, so that below the knee the loss of sensibility becomes everywhere complete. You have thus a sort of trumpet-shaped anaesthetic area, occupying the middle posterior aspect of the left thigh. Both penis and scrotum are also anaesthetic. I am not able to demonstrate any retardation of sensory conduction.

Summarized, the most important and striking features presented in common by these two cases are as follows: History of severe injury to the middle and lower spine; this followed at once by pains in the back and limbs, spinal rigidity, anaesthesia, and paralysis of the lower limbs and of the bladder and bowels; the condition remaining is one of motor paralysis, wasting, contractures, depressed electro-contractility,

coldness, and lividity, peculiar zones of anaesthesia, abolition of tendon-reflexes and of skin-reflexes in anaesthetic regions. This train of symptoms points to lesions chiefly of the lumbar enlargement of the cord. The painful sensation in the loins, and up the back and down the legs, the motor palsy and degenerative atrophy, the abolition of reflex excitability, and the peculiar anaesthesia, show destruction, more or less complete, of the part of the cord containing the nuclei of origin of the nerves which constitute the crural and sciatic distributions. In the case of dorsal lesion before you in the previous lecture—the lumbar enlargement below the seat of disease remaining comparatively healthy, and the vital connection of the cord with the nerves of the lower being unaffected—you saw enormously increased, instead of lost, reflex action, and but little wasting and sensory interference. You have in these cases an opposite condition.

If, in connection with the peculiar regions of cutaneous anaesthesia in these cases, you will study a schematic representation of the areas supplied by the cutaneous nerves—a diagram, for instance, such as may be found in "Henle's Anatomy"—you will discover a certain correspondence between the anaesthetic zones and the distributions of certain nerves. The lower limbs can be mapped into distinct districts, according to their nerve-supply, such, for example, as the ileo-inguinal, lumbo-inguinal, posterior cutaneous, crural, saphenous, etc., etc. My object just now is not to examine closely the question of nerve distribution in connection with the phenomena here exhibited—such an investigation would take several hours—but simply to direct attention to general facts.

Alkalinity of the urine, present in both of these cases, is a frequent symptom both of acute and chronic myelitis.

The two cases, although so similar in most respects, show some points of unlikeness, which depend, I think, upon the extent—that is, upon the exact localization—of the lesions. The second patient has had some difficulty with his vision, particularly for near objects, his upper extremities show slight evidences of permanent weakness, and he suffers at times, a point which I have not before noted, from startling seizures, in which the chief symptoms are dyspnoea, rapid pulse, palpitations, nervous tremor, burning sensations passing upward from the abdomen, a feeling of soreness and stiffness in the eyes, and great anxiety—facts which lead to the conclusion that the upper dorsal and even the cervical cord must be in a condition not absolutely healthy, rendering it liable, under various exciting causes, to states of temporary congestion. One curious feature is the difference in the sexual condition of the two men—one, strange to say, considers that he is as well in this respect as he ever was; in the other the function is abolished. It is worthy of remark that in the latter case the district of anaesthesia includes both penis and scrotum.

According to Goltz, the reflex centre of erection is situated in the lumbar cord, a view which would seem to be called in question by the sexual history of the first patient.

As to the exact nature pathologically of these cases I will not have much to say. In both instances, probably, some direct compression or crushing of the lower portion of the cord took place, this being followed at first by an acute, and subsequently by a chronic, meningo-myelitis. More or less meningeal or myelitic hemorrhage may have occurred, and general concussion of the cord may also have had something to do with the production of the symptoms.

The prognosis, at the stage at which you now see

these cases, is, of course, so far as cure is concerned, utterly hopeless.

Much, however, can be and should be done to palliate their woes. It may be of service to you in the future to discuss here the general management of such cases.

In the first place, what should be the treatment immediately after the receipt of injuries such as those detailed? Absolute rest in bed it would be almost unnecessary to enjoin, as it would follow as a matter of course. If the patient should be suffering from shock, attention must be directed to this condition. After rallying from the first general effects of the injury, unless some special contraindication should be present, blood should be taken from along the spine by leeches or wet-cups. Even the use of the lancet might be advisable in robust individuals; but usually local bloodletting would best fulfil the indications. Cold, in the form of affusion, cold compresses, or ice-bags, might be subsequently applied, although the immediate effect of such treatment should be carefully watched, as, in a few instances, from some scarcely recognizable reason, the congestive or inflammatory condition appears to be made worse in this way; and such being the case, warm, or even hot applications, would be found to do more good. The diet should be restricted. Febrifuges should be used, if called for by the state of the circulation and temperature. The bromides of potassium, sodium, ammonium, or lithium might be given with advantage, to counteract hyperæmia and irritation, and the subcutaneous injection of ergotine, as recently recommended for sanguineous apoplexy, would be worthy of early trial. The bowels and bladder should be emptied, if necessary, by direct interference. If the use of the catheter is neglected, cystitis will sometimes rapidly develop. If fracture, crushing or dislocation of vertebræ has occurred, prompt surgical interference must be resorted to, and if this is successful, orthopædic apparatus might also come into play afterward. Even trepanning the vertebræ was performed by Cline as far back as 1814, and several successful operations have been reported; recoveries, however, in cases of this kind are far from being the rule.

While the spinal affection still remains acute or subacute, the old plan of giving calomel and opium is not unworthy of trial.

Sometimes, after appropriate and active treatment, great improvement will take place, and the patient may even approximately recover; usually, however, as in these cases, a permanent paraplegia remains. When the affection threatens to become or has become chronic, counter-irritation—sinapisms, blisters, setons, or the cauterizer—may be called upon to help stay the downward progress of the malady. If such measures are calculated to do good, they usually do it promptly. Iodide of potassium, with the view of causing absorption of meningeal or other exudation, should be thoroughly pushed; and mercury, by inunction or otherwise, can be employed for the same purpose. Direct galvanization of the spinal column can be allowed a persistent trial; ascending currents of moderate strength being given the preference. Hydropathic and thermo-hydropathic measures come to us, strongly recommended by high German authority, for ordinary chronic myelitis, and may be tried. Both faradization and galvanization of the paralyzed extremities may be employed from time to time to keep the muscles in their best possible condition, as you sometimes have in such cases—from want of use and care—wasting, deformity, etc., out of proportion to the disease of the membranes and cord. Massage and

Swedish movements are also local means of great service to the paralyzed limbs. With the exception of the hydro-therapeutic measures, the various plans of treatment just detailed have been resorted to at different periods in the histories of our patients.

Special symptoms must be attended to as they arise. To relieve pain and spasm hypodermic injections of morphia and atropia, or suppositories of opium and belladonna will be found useful. Cystic irritation usually yields to a combination of bicarbonate of sodium, tincture of belladonna, and spirits of nitrous ether, conjoined with poultices, stupes, or sinapisms to the abdomen. In all cases of serious spinal disease a constant watch should be kept on the bladder, and the catheter promptly used if necessary. Sometimes, as the result of the constant dribbling of urine, an inflammatory condition of the glans penis and prepuce is set up, and requires special attention; cleanliness is of the utmost importance, and sedative salves and lotions may be used, or a catheter may be kept in the bladder for a time. Bed-sores must be carefully guarded against; when present, and particularly if extensive, I always resort to the treatment by means of galvanic plates. The large sacro-coccygeal sore, from which the second case suffered, was quickly healed in this way. The startling paroxysms of dyspnoea, palpitations, anxiety, etc., which the second patient occasionally experiences, are similar to the seizures of which I spoke, when lecturing on a case of cervical disease, and indicate involvement of respiratory and cardiac tracts or centres. Changing the position of the patient, prompt cupping, the temporary use of respiratory and circulatory stimulants, such as belladonna, digitalis, and carbonate of ammonia, and the subsequent administration of the bromides, are the measures to which I have already called attention.

Of the use of such drugs as ergot, belladonna, and strychnia, as special remedies for myelitis, I shall have more to say in connection with non-traumatic cases of a less hopeless character.

Every effort should, of course, be made to promote the nutrition of the cord and of the individual, by the use of such remedies as tincture of the chloride of iron, cod-liver oil, phosphorus and arsenic. The patients should not be kept in bed all the time. In proper weather they should be sent into the open air in invalid chairs as often as possible.

FUCUSINE AS A THERAPEUTIC AGENT.—Fucusine has been claimed to be of much value in Bright's disease. Dieulafoy reports a series of cases to the *Gazette Hebdomadaire*, from which he concludes its action in this disease to be very slight, occasionally, however, producing some amelioration of symptoms. Its value in general is not great.

SURGICAL TREATMENT OF ANASARCA.—To avoid the inflammation and erysipelas that occasionally follow the puncturing of oedematous limbs, M. Wickens uses the following procedure: After having well oiled the limb, he rapidly makes twenty or thirty punctures with a large needle, the point just penetrating to the subcutaneous tissue. This done, he places over the punctures sponges previously soaked in a solution of salicylic acid. The sponges are to be removed, squeezed, and soaked in salicylic acid again every two or three hours. In this way several pints of fluid will drain away in twenty-four hours. In seven or eight days the wounds will be healed.—*Belgian Archives of Medicine.*



Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEO. M. BEARD, A.M., M.D.,

OF NEW YORK.

[Continued from p. 555, June 14, 1879.]

III.

SINCE the publication of these series of papers was begun, some of the most radical of the propositions and views advanced in them—which to the profession seemed most striking and revolutionary—have received indorsement from an entirely independent source.

Mr. Jonathan Hutchinson, of London, in the *Medical Times and Gazette* for June 21 and August 28, 1879, in the course of a lecture on "Hyperæsthesia of the Eye," traverses part of the territory to which these papers are devoted. Mr. Hutchinson is both an original observer and a skilful surgeon and ophthalmologist, and he approaches the subject from the side of surgery and ophthalmology, as I am here endeavoring to approach it on the side of neurology. After stating that there are quite a number of cases of painful eye where there is aching on reading or working, where daylight annoys and artificial light is very hard to bear, and where, when complete rest is secured and strong light avoided, the aching is relieved, he states "that on examination with the ophthalmoscope nothing abnormal is found, excepting that the retinal veins are always full, in some cases there is refraction and some weakness of the internal recti, but only in a small minority of cases. With very careful examination we make a diagnosis of hypermetropia, myopia, or astigmatism, yet glasses carefully selected will give the patient little or no relief. Oftentimes, indeed, the patient complains that the glasses hurt his eyes. Tinted glasses are better, and are of some assistance."

In regard to these cases, Mr. Hutchinson remarks: First, "That these symptoms may come and go suddenly."

Secondly, "That they are frequently associated with headache and various other nervous symptoms, and are quite frequently found in students, professional and literary men, and, in general, brain-workers."

Thirdly, "That they are sometimes closely related to nocturnal emissions and sexual excesses."

Fourthly, "That in pathology this hyperæsthesia of the eye is quite analogous to spinal irritation and irritable ovary which are seen in women, and irritable testes which are seen in men, and irritability of the prostate, the coccyx, the sphincter ani, or bladder."

This venous congestion is about all that is revealed to the senses. These facts and these conclusions from facts, so far as they go, are precisely those which, during the past ten years, I have been advocating in various articles on neurasthenia and allied affections, and which have been enforced through all this series of papers.

There has been a disposition among all the ophthalmologists with whose writings I am familiar, or with whom I have conversed on these themes, to look at this form of eye-trouble more and more from the neurological standpoint; but, so far as known, no ophthalmologist or surgeon has formulated the above propositions.

Mr. Hutchinson prefers the term "hyperæsthesia" to the ordinary term retinal hyperæsthesia, for the very just reason that the latter term, retinal hyperæsthesia, does not cover the whole ground.

I prefer the term neurasthenic asthenopia to cover these symptoms, since it expresses accurately and exhaustively, and in a convenient form the real condition, and logically includes all the different varieties and sub-varieties of which Mr. Hutchinson speaks, and to which he applies the term hyperæsthesia of the eye, irritable eye, or eye-ache.

Mr. Hutchinson fully understands the dependence of these eye-symptoms (neurasthenic asthenopia) on general neurasthenia, and in regard to pathology takes the view which I published in 1868, that the real difficulty is not so much in the circulation as in the innervation, the passive congestion so often found in these states being a result of the neurasthenia, or, as he expresses it, lack of tone. This pathology is correct as applied to all neurasthenic symptoms whatsoever, and the eye is the best organ wherein to study this side of the nervous system, for the reason of the unequalled precision of the methods of examination.

If we could study spinal irritation, or cerebral irritation, or irritable testes, or breast, or ovaries, or irritability of a peripheral nerve, as in some forms of writers' cramp; or of the stomach in nervous dyspepsia; or of the auditory nerve in many cases of tinnitus; or of the prostatic urethra in seminal emissions, in spermatorrhœa—with the same instrumental precision and completeness, it is as absolutely sure as any fact in science can be, that we should find a condition quite analogous to that described by Mr. Hutchinson in neurasthenic asthenopia.

Mr. Hutchinson reports the following case:

"Mr. T—, our patient, was florid and healthy-looking, and his living depended upon his profession, and he was not in the least likely to feign or exaggerate his malady. To what cause could we attribute his hyperæsthesia? Was he out of tone, and in any respect in ill-health? He said that he could eat well, slept well at night, and was not aware of any degree of failure of health. He did not suffer from cold feet, but I noticed that his hands were mottled and somewhat livid from feeble circulation. There was something in the tone of his voice which did not suggest vigor. I found that he had been married three years, and that his wife had never conceived.

"The date of his marriage coincided with that which he assigned for the failure of his eyes. They had been, he recollected, a little irritable in the daylight, even before his marriage; but chiefly had failed after it. I asked him if he had any suspicion that married life had not suited his health, and he at once replied that he all along suspected that the failure of his eyes had been connected with it. Yet he did not admit that in any other respects he had experienced any very noticeable ill results. He had had neither headache, backache, nor lassitude. It appeared that prior to marriage he had led an absolutely continent life, and that he had always been a total abstainer from stimulants.

"You will notice how closely in these details his narrative fits the preceding one. To complete the case, I must tell you that he never smoked, that he was liable to palpitation of the heart, and that once in his life he had fainted away.

"It is scarcely necessary to say what I recommended in the way of treatment. He was to take wine regularly, to go away from his wife for a month, and to use sea-bathing, and on his return accustom himself to extreme moderation in sexual matters.

"In considering such cases as these, one cannot but be struck with the fact that there is exceedingly little to be proved in the way of defective tone. Had the eyes remained good, neither of these gentlemen (two cases are reported) would have recognized any departure from good health."

In regard to this case of Mr. Hutchinson, I will remark, first, that the course of treatment he recommends was not by any means adapted for all cases, nor would it cure, or even permanently relieve all cases. While it is very possible that the general diagnosis of the cause was correct, that sexual excess was the source of the weakness of the eyes, yet cases of this kind are often treated with months and years of rest, without any permanent benefit. Then, again, they will not all bear wine, even in small quantities, and the majority of them will not bear tobacco well.

These cases, as has been shown in these papers, may be treated, even while they are at their work, without losing a day, oftentimes more successfully than by most protracted rest. This was clearly shown in the case reported in the second chapter of the series, where rest had failed, and the glasses and ophthalmological treatment had failed; while constant general sedative and tonic treatment, combined with local treatment, thoroughly succeeded, even while the patient was at work, using his eyes many hours every day.

Rest is a remedy that is sometimes overdone. It is a good remedy, but very often utterly fails of its purpose.

Secondly, Mr. Hutchinson was probably in error in regarding the eye-symptoms as the only symptom from which this patient suffered.

This side of the nervous system—neurasthenia both of the general and sexual varieties—has now been studied long enough and closely enough to make it possible for us to state with entire certainty that neurasthenic asthenopia never or rarely exists entirely alone. In cases of this kind, careful study in complete details is almost sure to reveal more or less preceding or accompanying symptoms of neurasthenia. These symptoms are not familiar to the profession, because the profession do not study these cases, but dismiss them as victims of pathophobia.

It is a satisfaction that, after so long a struggle and waiting, and delay and misconception, so good a neurologist as Erb in Germany, and so able an ophthalmologist as Hutchinson in England, are entering upon the study of some of the phases of this most interesting and most frequent disease of modern times.

CASE XIII.—In the fall of 1878 a gentleman consulted me for the following symptoms. There were frequent attacks of intense pain and heat behind the ears. These attacks were especially severe after eating dinner and at night. There was oftentimes a feeling of fulness in the head, and decided evidence of cerebral congestion; sleep was inconstant and treacherous; he was easily kept awake by mental excitement, or by expectation of any responsibility to be incurred. A symptom that distressed him much was mental irritability. He was annoyed excessively, and out of all reason, by the play of children, or by any disturbances or unpleasant things that might arise in his family or business relations. Another evidence of his nervous susceptibility was, that he could not play a game of cards or billiards without getting nervous and having palpitation of the heart. Yet another evidence still of nervous susceptibility was that he could not bear the touch of flannel to the skin; the very thought of it would give rise to creep-

ing sensations on the spine. An interesting nervous symptom in this case was that oftentimes, in attempting to make water under circumstances of haste or excitement, as when there were persons standing behind him at a public urinal, wishing his place, there would be complete temporary retention.

Asthenopia was also a very distressing symptom; reading fine type made his eyes ache, so likewise did reading at night, or on the cars, or writing during the day. His occupation was that of a clerk in a banking house. The pulse was frequently very rapid, sometimes up to 110, to 120, rarely approaching the normal standard. At least in the times that I first saw him, so susceptible was his heart to tobacco, that very little smoking would excite his pulse and give him a sleepless night. The tongue was white and furred, and he was liable to attacks of indigestion, especially after dinner. This patient was a strong, muscular Englishman, florid in appearance, and capable of walking far and long, and enduring much physical exertion of almost any kind. And yet this man, whose appearance suggested perfect health and unusual vigor, was a typical case of cerebraesthesia or brain-exhaustion. There were no evidences whatever of myelasthenia or spine-exhaustion. There was no hypochondria in any degree, no tendency to worry over symptoms, and little or no mental depression. The history of this case bore the test of frequent cross-examination and close study. The questions to be decided in his case were: First, the cause of this cerebraesthesia, or this nervous susceptibility associated therewith in this strong Englishman; secondly, what form of asthenopia was he suffering from, and what relation had the asthenopia to the nervous symptoms in their general aspect? Was it a cause or effect, or both, of the exhaustion?

The history of the case, the results of the treatment, answered clearly both of these questions. The patient had masturbated at the age of fourteen or sixteen. After the abandonment of the habit there had been seminal emissions. For five years he had been married. He usually had intercourse but once a week. In almost all cases intercourse thus rare was followed by sleeplessness and heightening of all his nervous symptoms. Examination of the parts showed a fair development, but a prepuce somewhat elongated and redundant. It, however, was pushed back behind the gland and kept back, by my advice, with a little effort on his part. The lips of the meatus were congested, and suggested disease of a portion of the urethra. The urethra was also hyperæsthetic. There was, however, no difficulty in urination, and had never been, and no stricture, and had never been any gonorrhœa. I felt quite confident from the history of the case, and especially from the fact that the difficulty with the eyes was inconstant, coming and going with the existing causes, that the trouble was of a neurasthenic character, and that expert examination would prove it. Dr. Roosa saw the case, studied it carefully, and found, as he stated, nothing save a slight retinal congestion to account for these symptoms. Colored glasses were, however, recommended and used.

The results of the treatment have confirmed both this general and special diagnosis. The patient was at first treated generally, without any reference to the sexual organs, and with a certain degree of improvement of some of the symptoms. But nothing permanent was gained in many of the symptoms until local treatment was employed, including cooling catheters, cooling rectal electrodes, cup-sounds, with various ointments, internal galvanization and faradization, and electro-puncture. Other methods of

local treatment employed in this case were, injections in the urethra of bismuth water and witch-hazel, the local application of iodoform, and suppositories of various combinations. The effect of this local treatment was of a most satisfactory character. Even where no general treatment was employed, every symptom improved, and a majority of the symptoms have disappeared almost entirely.

CASE XIV.—I have now under observation a gentleman over fifty years of age, whose prostate gland appears to be in a condition analogous to that of hyperæsthesia of the eye. He had been examined, before coming to me, by a distinguished surgeon, who could find no trouble with the prostate gland; and yet, so irritable is he, that a walk of a mile or two will cause great pain in the region of the perineum and in the lower part of the back.

An ophthalmologist of reputation had carefully examined his eyes, but could find nothing the matter with them, and yet for years they had caused him intense suffering, making it difficult for him to read or use them as he desired. It is possible that the prostate gland and the eyes are in the same pathological state: irritable and painful; neurasthenic, congested at times without being inflamed or enlarged; but none the less diseased because we cannot see the disease either with our eyes or the imperfect means of supplementing our visual deficiencies. This man had a nervous inheritance, began masturbating at puberty, abandoned the habit at the age of eighteen or nineteen, worked hard in business, almost always had cold feet and hands, married at twenty-seven, had involuntary emissions after his marriage—a case clearly enough a type of those referred to by Mr. Hutchinson, and to the study of which this series of articles is devoted.

A number of times in the course of these articles it has been asserted that functional nervous diseases are hardest to cure in the strong, phlegmatic, and vigorous, other conditions being the same. It has also been repeated again and again that irritation, abuse of the sexual organs in an unnatural or natural way, may have two very different effects—may be either local or general. When the effects are general and constitutional we have neurasthenic asthenopia, as before described, in all its forms, morbid fears in their different varieties, sweating hands and feet, headache, backache, myelasthenia, (exhaustion of the spine), with or without the spinal irritation, nervous dyspepsia, pain on pressure of the vertex, and so on, with a long row of functional nervous symptoms that make up the picture of neurasthenia.

When the effects of sexual excess are local only, we have impotence in its different grades, sometimes in its worst grade, with the symptoms of prostatic congestion, lack of desire and lack of power, premature emissions, coldness of the parts, while at the same time the constitution in general is unaffected. The man is as strong for his muscular or mental work as ever.

CASE XV.—The following case shows also how sexual debility may exist in persons of great muscular strength. A gentleman thirty-seven years of age, an athlete, powerful, and distinguished in the gymnasium, large frame, though not very tall, consulted me two or three years ago for symptoms of sexual debility, which he feared might prevent his marriage. His history was that he began masturbation at the age of fourteen, kept up the habit off and on for many years, and then he was tormented with frequent erections, though the emissions were only about twice a month. This strong, healthy man was so troubled

with palpitation, that, as he said, sitting in church he would shake the pew with the beating of his heart. After a course of sedative and tonic treatment, he at last got married, though with trembling and fear.

The day following his marriage he came to me in great distress, representing that he had made a great mistake, inasmuch as he was unable to consummate his marriage completely; he was told to wait for time to make the matter right; at the same time was treated with sedatives and tonics, and in a few days he reported a satisfactory result.

There had been in his case at one time symptoms connected with the prostatic portion of the urethra, for which he was treated with belladonna, ergot, and very small doses of cantharides.

The chief fact of interest in his case was the co-existence of this local debility of a certain grade with not only great, but enormous muscular strength. The heart also in his case was more like a delicate woman's than that of a strong man, and I see similar case continually.

I insist upon this fact, and repeat it again and again, because it seems to be new to the profession, although it has so often been referred to; it is an observation of great importance and scientific value in diagnosis and therapeutics.

The following case illustrates this latter type, where the excess makes itself felt locally, the patient remaining all the while strong.

The case also represents the satisfactory result of treatment.

CASE XVI.—A young man, thirty-three years of age, began the habit of self-abuse at the age of seventeen; after three years he stopped; then came involuntary emissions. When he consulted me, in the fall of 1878, he had the following symptoms: flushing of the face, anthropophobia (fear of society), mental depression. His anthropophobia was so profound that at times, in going into company, his heart would beat and he would feel weak in his knees. These were all the general symptoms with which he suffered.

On the other hand, he had a good pulse and an unusually strong stomach, firm muscles, and a capacity for severe and protracted muscular toil in his trade. Examination of the parts showed there was no stricture and no phimosis, although at one time he had the gonorrhœa. There were, however, clear evidences of sexual debility; there had been real aspermatism; there had been erections without any emissions to follow; at times he was utterly incapable of any satisfactory intercourse.

For several months before he consulted me he had no involuntary emissions; he was much distressed in regard to himself; especially did he want to get married. I treated him a number of months by electricity, by the methods described, using general and local applications, the electrolysis of the prostatic urethra, urethral electrode and the cooling and heating catheters, wire-brush electrode, counter-irritation of the perineum and the lumbar spine, the injection of liquor bismuthi, also the local application of iodoform.

There was no hyperæsthesia of the urethra in any part, a condition we so often see in these symptoms; he had passed through that stage. There was no difficulty in using whatever local treatment we wished. Last spring he had so far improved that I consented to his marriage. He followed the advice given, was married, and has had no difficulty in fulfilling his marital duties; the anthropophobia and other symptoms disappeared long since.

In the above case there was illustrated the very marked and very interesting psychological fact that

coitus may be unsatisfactory with a stranger even when there may be no disease whatever. Before his marriage he made an experiment of that kind with a stranger, and failed. This failure, as I told him, was psychical rather than physical, for after his marriage, which soon took place, there was no difficulty.

CASE XVII.—A gentleman, *æt.* 37, consulted me for general debility that had existed for very many years. At the age of fifteen he formed the habit of self-abuse; kept it up for some time, and subsequently went with women occasionally; but at no time, according to his statement, had there been full satisfaction; the emissions came too soon, and intercourse was possible only at long intervals. On the examination of the parts, the right testicle was found quite irritable, a condition very common. In this patient, on pressure, considerable pain was experienced; the right testicle was somewhat longer than the other; the prepuce was somewhat elongated. He was a man of large size, of great physical strength. He had very few of the nervous symptoms that so often accompany cases of this sort when there is a history such as he gave. The conjunctiva was somewhat congested, but the eyes were not sensitive. There was a degree of anthropophobia. The prepuce was also extended over the glans. He had been treated surgically, but not with any satisfaction, by means of sounds. Examination of the urine showed no albumen or sugar or spermatozoa, but an abundance of the oxalate of lime and of uric acid. Here was a case where there was a local debility, not of an absolute character, however, but of long standing and of some importance in a man of immense size and vigor, capable of much physical endurance. Every other function was well performed: the appetite was good, the digestion was good, the bowels gave no trouble, he was not usually depressed, his memory was not weakened, there was no palmar hyperidrosis so often seen in these cases, no backache, or back pain of any kind; the patient was enjoined to abstain from sexual intercourse for a while, and was treated by a combination of ergot and belladonna, by the mineral acids, by internal faradization, by cooling and heating catheters. The results in all respects were satisfactory, so that in a few weeks he was married.

I have now under care a gentleman who, with other nervous symptoms dependent on true spermatorrhœa, is annoyed by attacks of irritability of the eyes, of a most indefinite but very disagreeable character, and which compel him to rub and press upon them. A well-known oculist failed to find anything to explain the symptom. The attacks come and go in a moment. That they depend directly on the diseased prostatic urethra is beyond question, and the treatment is ordered in accordance with that diagnosis.

ANÆSTHESIA AND HOT WATER IN THE TREATMENT OF TORTICOLLIS.

By SAMUEL C. BUSEY, M.D.,

PROF. OF THE THEORY AND PRACTICE OF MEDICINE, MED. DEPARTMENT UNIVERSITY OF GEORGETOWN, WASHINGTON, D. C.

In January last (1879) a young lady, aged 17, after a prolonged exposure to severe cold, was seized with stiffness of the neck, with great soreness extending from the occiput downward over the back of the neck and upper posterior surface of the shoulders. Very slight movements of the head produced acute pain over the entire region of tenderness, but most intense along the occipital and nuchal attachments of

the trapezius muscles. She was subjected to treatment for about six weeks without any marked benefit. In March, when I first saw her, the soreness and pain were mainly located in the region of the left trapezius, and limited to that portion extending from its origin from the occipital bone down to its attachment to the spine of the left scapula. The cervical portion was very tender, felt hardened, and was thicker and larger than the corresponding part of the right muscle. Her head was as fixed as if firmly fastened in an immovable apparatus. The chin was carried toward the right and the occiput was depressed backward and to the left. The left shoulder was elevated. Contracture and rigidity of the neck part of the muscle was manifest. Pressure along the cervical portion of the spinal column, between the borders of the two muscles, gave great pain, and every effort, however slight, to move the head, either laterally or antero-posteriorly, produced the most intense suffering. The young lady was up and about the house, but sat and walked as if her head was immovably fixed in one position. When attempting to turn the head to the right or left, the whole trunk moved, and when stooping or rising the head was retained in the same relative position to the body. The same immobility of the head was maintained during sleep.

Internal medication and diverse local applications proved futile. The parents would not permit the hypodermic use of sulphate of morphia, and the young lady would neither submit to enforced movements of the head nor massage of the muscles. Electricity was faithfully and patiently tried for several weeks without any substantial improvement, and, finally, the case was relegated to time, hot weather, and expectancy. But these conservative expedients, like the preceding medicaments, proved unavailing, and I was recalled to the case July 2d. Her condition was but little, if any changed. The mother insisted that the displacement of the chin toward the right had increased.

At this consultation I suggested one of the three following methods of treatment:

The hypodermic use of the sulphate of morphia (which I have successfully employed in recent cases of lumbago and torticollis), and free movement of the affected muscles during the insensibility to pain.

The operation of Prof. Annandale: section of the left spinal accessory nerve, which I did not urge for various reasons, but mainly because I believed the trouble to be a rheumatoid affection of the muscle, and not, as in Prof. Annandale's case, a nervous disturbance.*

And lastly, the production of anæsthesia with ether, and enforced movement of the head during the narcosis.

The last was preferred by myself and selected by the parents, though sternly opposed by the patient. Several days after, with the assistance of Dr. Ashford, the young lady was completely etherized. During the insensibility I grasped the head with both hands and continuously rotated it through all of its normal motions, carrying the movements to the utmost limit of rotation. This operation was continued for ten minutes, and then the patient was left to sleep.

At my visit the next day she met me with the declaration that her neck was well. Her head was straight, chin in the median line, antero-posterior mobility quite restored and easy, but lateral rotation was somewhat painful when carried to extreme limits, and less free than natural. With directions to use friction or massage several times a day, I left the patient.

* London Lancet, April 19, 1879.

Several days elapsed before my next visit, and then it was manifest that the lateral rotatory movements were less free and more painful. I suggested a second trial of anæsthesia, but no argument could induce the patient to submit. In this dilemma I advised the use of hot water. An india-rubber hot-water bottle was secured, which, when filled with water as hot as could be borne, was firmly applied and secured over the affected muscle, and kept in position until the water cooled. This application was repeated daily during several weeks, with continuous improvement, and when last seen the cure seemed nearly complete.

I believe the repetition of the enforced movement during anæsthesia would have accomplished all that could have been expected, without any additional treatment, though it is not improbable that some soreness of the affected muscle would have remained for a brief period.

This method is to be preferred to either of the others suggested. In acute cases a single injection of the sulphate of morphia may be sufficient; but in cases of several months' duration, which are usually very intractable, the necessary and frequent repetition might produce unpleasant complications. Complete insensibility to pain produced by etherization is less dangerous, shorter in duration, and freer from unpleasant disturbances than morphia narcotism to an equal degree. In cases of permanent contracture of single or groups of muscles, it is not probable that either agent would prove valuable as a remedy; yet etherization or chloroform narcosis is the ordinary resource in cases of muscular contracture and rigidity, not, however, as curative agencies, but to secure insensibility during the performance of some necessary operation. In this case the enforced movement of the head was the object sought to be accomplished.

Section of the spinal accessory nerve has been performed in four cases of spasmodic wry-neck, with two successes. In Prof. Annandale's and one of De Morgan's cases, which were identical, the result was successful. In both cases the condition was neurotic and not, as in the case here reported, dependent on inflammatory changes of a rheumatoid character. To these different conditions may be due the varying success of section of the spinal accessory nerve.

In these cases of torticollis rheumaticus of long standing, the power and movements of the affected muscles, impaired in the beginning by the inflammatory changes and consequent pain, are, from long continued disuse, either totally lost or so perverted as to cause ugly and grotesque deformities. Restoration of the function of the muscles constitutes the essential factor in the successful treatment of the cases. This cannot often be accomplished without the aid of either anæsthetics or analgesics. Whatever may be the agent employed to secure insensibility to pain during the enforced exercise of the muscles, the changes which may have taken place in the muscular structure will demand subsequent treatment before the impaired mobility and power are completely restored.

THE ALUMNI ASSOCIATION OF THE BELLEVUE HOSPITAL MEDICAL COLLEGE holds its annual meeting and reunion at Delmonico's, Fifth Avenue and 26th Street, on Tuesday, September 30, 1879, at 8 P.M. Alumni who propose attending the meeting will please notify Lewis H. Savre, M.D., Chairman Committee of Arrangements, 285 Fifth Avenue, before that date. The price of tickets has been fixed at two dollars.

FORCIBLE DILATATION OF THE SPHINCTER PALPEBRARUM AS A MEANS OF TREATMENT IN OBSTINATE CASES OF BLEPHAROSPASM.

By HENRY G. CORNWELL, M.D.,

YOUNGSTOWN, OHIO.

DURING a two years' service as house-surgeon, Brooklyn Eye and Ear Hospital, a large number of cases came under observation where there existed, in connection with the various forms of corneal and conjunctival disease commonly found among the squalid children of large cities, a blepharospasm of most obstinate and distressing character. In some of these cases this spasm of the lids, as is frequently noticed, was of more serious import, so far as affecting the health and exercise of the patient was concerned, than the disease from which it had its origin. In conjunction with a rigorous diet, daily sponge-baths, tonics, and the usual local treatment of the corneal or lid disease, the internal administration of conium and belladonna was prescribed, counter-irritants were used, soothing embrocations to the external surface of the lids, the douche and plunge-baths were resorted to—all of which proved to be of little effect in controlling the spasm.

These unsatisfactory results led the writer to employ forcible stretching of the orbicularis. The cue to this plan of treatment was obtained in the observance of the fact, that in spasms of the sphincter and the result of fistulæ and fissures in this region of the body, and in affections of the female genital and urinary passages—vaginismus, etc.—such treatment proved to be of value. Forced separation of the lids was thereafter employed as a preliminary step to the ordinary local treatment, by placing the thumbs on their external surface and drawing them as far apart as was possible. Among the indoor patients this treatment was sedulously carried out, the lids were separated in this way several times a day, in all cases where the affection was found present. In granular lids its good effect was particularly noticed. Recently in private practice this plan of treatment has been more fully carried out. In some cases chloroform was given and the lids fixed widely apart by means of the spring speculum, when the patient was permitted to return to consciousness and the instrument removed. Iced cloths appeared to have a good effect when applied to the exposed globes as a local sedative. Atropinized castor oil was found to be of much benefit in irritable ulcerative conditions of the cornea, when used at such times.

This plan of treatment has proved to be, in private cases, of very marked value. In several the spasm was of most aggravating chronicity, and the treatment ordinarily resorted to in such instances was without good effect. In the following two cases immediate improvement was very noticeable:

Jennie D—, æt. 14, of Irish parents, a resident of this city, consulted the writer Sept. 29, 1878. At the time of her first appearance her eyes were heavily bandaged and her head covered with a thick veil. An examination could only be made in a room lighted artificially. By means of lid elevators the spasm of the sphincter was overcome and the globes inspected. Right eye exhibited small central ulcer of the cornea, to which a leash of several vessels was directed from the limbus conjunctivæ. Marked circumcorneal injection, and severe ciliary pain. Left eye: peripheral ulcer on the temporal side of the cornea; injec-

tion of scleral and conjunctival vessels, with slight pain.

The accompanying blepharospasm was very intense; every effort on the part of the patient to open the eyes being without effect. She was very nervous and palled from long confinement in a darkened chamber.

Treatment.—The use of atropia (4 gr. sol.), cold local baths of marsh-mallows and borax; tr. ferri chlor., after meals; daily sponge-baths, regulation of diet, etc. This treatment was strictly adhered to for three weeks without there being any manifest change in the corneal disease or the associated orbicular spasm. Oct. 30th, the patient was chloroformed, a stout spring speculum introduced, and the lids of each eye separated to their widest extent. Ice water was then permitted to drip into the eyes, and atropinized castor oil introduced. The chloroform was withdrawn after five minutes, and the patient allowed to recover from its effect. The specula were permitted to remain for a few moments in order that the orbicularis might be effectually stretched in endeavoring to overcome the resistance which the instrument offered when efforts were made to close the eyes. Two days later the patient returned, able to open the eyes fully and without much effort. The lids were ordered to be stretched apart several times a day by friends at home, and, in conjunction with the treatment originally followed, the case passed on to a favorable termination.

John H.—, æt. 13, of Irish parentage, a resident of Niles, O., came under observation July, 1878. An examination obtained after some difficulty, on account of the extreme photophobia and spasm of the lids present, revealed chronic granular lids, slight pannus, and incurvation of lids—both eyes. His general health was much impaired, appetite poor, and skin blanched from confinement in a dark and dirty apartment for several weeks.

Treatment.—A canthoplasty was urged, to which operation his parents would not submit him. His friends were then directed to separate the eyelids to their widest extent several times a day, by means of the thumbs on their external surface. Atropia sol. (4 grs. to $\frac{3}{4}$ i.), and sulphate of copper used daily, general baths, coquilles, and fresh air, together with syr. ferri iodidi, and laxatives of syr. rhei and sodæ bicarb., were prescribed.

At the time of his next visit, four days later, the patient was much improved, the eyelids were more under control, and less photophobia was present. Thinking the improvement was chiefly due to the sedative action of the atropia, as an experiment the speculum was introduced and the lids of each eye fixed apart for ten minutes. Immediately upon the removal of the instruments the patient could open the eyes readily, which he continued to be able to do, and the case went on rapidly to convalescence.

These two cases taken from a number, illustrate the good effect which forced separation of the lids had in spasm of the sphincter palpebrarum, and its secondary good effect upon the nutrition of the eyeball in many of its diseases occurring during childhood.

The favorable effect of this method of treatment is perhaps due to the combined influence of the forcible and continued stretching, thus breaking up the spasmodic tendency, and to the hyperæsthesia of the ocular branch of the trifacial nerves becoming obtunded by exposure to the air.

Since the appearance of my first paper on this subject (*Observations on the Treatment of Blepharospasm*),—reprinted from *Ohio Med. and Surg. Journal*, Dec., 1878—my attention has been directed to a reprint

from the transactions of the American Ophthalmological Society, 1878—"Cases of Ophthalmic Disease in which forced Exposure to Light and Air was Salutory," by C. R. Agnew, M.D., New York, wherein this plan of treatment is introduced in the management of those affections of the eyes where extreme photophobia and blepharospasm are prominent symptoms. After relating the history of a case, Dr. Agnew says: "It is, we think, fair to suppose that the main agency in the cure was the forcible exposure of the badly nourished eye-tissues to the action of the light and air. The influx of light and contact of air would naturally awaken the dormant or perverted energies of the tissues, and quicken the reparative action. It may be said that the repeated effect of the ether would tend to neutralize morbid sensibility, and harmonize the reparative forces. We are aware of the possibility of such an agency, and would not exclude it entirely in this case. Indeed, we have often seen, in cases of phlyctenular disease, where extreme photophobia had induced the use of an anæsthetic to facilitate the examination of the offending eye, the distressing symptoms greatly lessened on the recovery of the patient from the anæsthesia. But in this case the patient had had ether employed and a canthotomy done without benefit, and subsequently got well as described. Moreover, in other instances, in older subjects, we have tried the method of forcible exposure, without the intervention of anæsthetics, and with good effect, enough to make us trust it in otherwise incorrigible cases."

A CASE OF CHRONIC DYSENTERY TREATED WITH OPIUM, RESIN, AND IPECAC.

By WILLIAM HAMILTON NAYLOR, M.D.,

OF THE BRITISH CONSULATE GENERAL, NEW YORK.

W. S.—, æt. 38, able seaman on the British ship "Dryad," came under my care, suffering from chronic dysentery of some thirteen years' standing. The history he gave was as follows: He had been a sailor for some eighteen or twenty years, and had first contracted the disease while lying in Calcutta during the rainy season, where he received hospital treatment; had also been in hospitals in Bombay, Hong Kong, and other ports, but had never been thoroughly cured—in fact, he was what is called in marine vernacular an "hospital sailor."

When I first saw him he was in his "bunk," unable hardly to walk; had from twelve to thirteen passages a day of blood and slime; tormina and tenesmus were prominent; emaciation marked; appetite almost gone; pulse slow and feeble; tongue furred; excessive thirst; countenance denoting great anxiety and prostration; had cold, clammy sweat; was suffering from anæsthesia of legs and feet, and pins and needles in thighs.

I immediately ordered tr. opii, gtt. xxx., to be followed with pulv. ipecac, grs. xx., and hot fomentations, as recommended by Maclean, and ice to allay thirst. Twenty-four hours afterward the patient was seen, when the passages had not been controlled, and he stated that the medicine had made him "heave up." I again prescribed opium and ipecac, but reduced the latter by five grains.

The patient was seen the following day, when he stated that the medicine had not made him sick, but that there was no abatement of the dejections, and that his legs were feeling "hard." I again prescribed

as before, but in addition ordered powdered resin, in teaspoonful doses, every four hours. When I next saw the patient he had much improved, the number of passages had been reduced to about nine, and he did not feel so "tired;" his appetite had also slightly improved.

Directed that the treatment be continued, and ordered milk and lime-water to quench thirst.

From this time (four days after seeing patient, and two from date of ordering the resin) my man improved, the formation and anæsthesia rapidly disappearing, and the dejections falling from about twelve (when I first saw him) to about four per diem.

The man was finally lost sight of, having left the ship immediately he could get around.

This case presents some points of interest; firstly, as to the number of passages daily (and the man's statement was verified by the captain); secondly, by the symptoms of incipient dysenteric paraplegia; and, thirdly, by the marked improvement following the combination of Maclean's prescription with the resin.

In my practice, which is largely confined to seafaring men, and where I have unrivalled opportunities of seeing such cases, I have upon numerous occasions found marked and almost wonderful results accrue from the administration of resin.

This remedy is so simple that at times I experience much difficulty in making sailors take it, but in every instance where it has been steadily taken for four or five days, I have invariably found it beneficial; in fact, my rule is to give it solely in chronic dysentery, and I have yet to find a remedy which will in so short a period produce such satisfactory results, and I have no doubt had this man continued under my care for a short time longer, he would have been much better than he had been for years.

I might say, in conclusion, that the majority of such men are what is generally known as "hard cases," and go on periodical sprees in each port they go to, get wet, and bring all their symptoms back with renewed vigor. Of course, one gets little satisfaction from treating such patients, as it is only in rare cases our instructions are carefully followed out.

223 WEST THIRTY-NINTH STREET.

Reports of Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

PELVIC PERITONITIS AND CELLULITIS.

If the attack cannot be aborted the treatment is taken up regularly, the two most important indications being (1) to stop the pain, and (2) to prevent the formation of pus. With these ends in view full doses of opium and of the bromide of potassium are given together with from thirty to forty grains of quinia daily. The abdomen is painted with iodine and covered with a poultice. If the woman is plethoric the morphia is given by the mouth with neutral mixture and wine of ipecac. In some cases tonics are demanded. Occasionally the application of belladonna and blue ointment locally proves beneficial.

If the attack lasts for more than a week and the

local tenderness increases, the hot-water douche is applied to the tender cervix uteri. It is at this stage also that flying blisters are applied, beginning with a good-sized blister over the iliac region. In some cases this is all that is required. When the tumor still persists, however, another blister is put on over the womb, and then another over the other side of the abdomen, and so on until the swelling disappears entirely.

If at any time a sudden chill supervene, the plan followed is to begin all over again with large doses of quinia and of morphia.

When pus has formed tonics are administered, and among them iron especially.

In the later stages of the disease muriate of ammonia has been found to be a very excellent remedy.

The following prescription is that usually employed:

R Mist. glycyrrhizæ comp. f ʒ vi.
Ammonii chloridi. 3 ij.
Hydrarg. chlo. corrosivi. gr. i.
Tinct. aconiti radialis. gtt. xxiv.
M.

S.—A tablespoonful in water every six hours.

If pus has formed, and it becomes impossible to secure its absorption by medicinal means, the spot is found where the abscess is beginning to point, and an incision made large enough to admit of a free drain of pus. After aspiration the cavity is injected with a solution containing one part of iodine to nine parts of water, or, in some instances, a five per cent. solution of carbolic acid is employed.

ALBUMINOID DEGENERATION OF THE KIDNEYS OF PROBABLE SYPHILITIC ORIGIN, WITH OZÆNA AND PSEUDO-MEMBRANOUS ANGINA.

The patient was a white man, thirty years of age. When admitted to the hospital he presented the following history: He had been engaged in the manufacture of morocco for the past fourteen years, with the exception of three years spent in a butcher's shop. His habits had been good always, except when butchering, when he was intemperate. He had always been a hard-working man, and had been always much exposed to cold and wet. He had variola and measles when a child, but no other exanthematous disease. He was a married man, and had one child who suffered constantly from œdema of the feet and face. His (the patient's) father died of paralysis of syphilitic origin, and his mother of dropsy. His only living brother was healthy, but his sister had goitre, palpitation, and dropsy.

During the twelve months prior to his admission the patient had had frequent pains in the back and frequent dyspnoea. During the last four months of this time there had been a general condition of anasarca.

The appearances presented by the man upon admission were as follows: His face, neck, feet, and body were swollen. His general aspect was markedly anæmic. He was decidedly drowsy, but his intellect was good. His tongue was tremulous, coated, and flabby, and there was a membranous patch upon his uvula. The tonsils were enlarged, and the throat sore. The man's appetite was good, but there was considerable flatulence and pyrosis after meals. His bowels were somewhat costive. Respiration was attended with a loud noise in the larynx. Expiration was prolonged. The glands on the right side of the neck were swollen. He had a bad taste in his mouth, and his breath had an unpleasant smell. There was

no abdominal effusion, and his lungs seemed to be healthy. The sounds of the heart were distant and feeble, and the pulse was small and rapid. The apex-beat of the heart could be felt underneath the rib in the fourth interspace; a weak impulse could also be felt in the second and third interspaces at the border of the sternum. The upper border of cardiac dulness was a line drawn from the head of the second rib to the left nipple, and its utmost limit outwards was a line drawn directly downwards from the nipple to the fifth rib. A line drawn parallel to the linea mammarialis and running from the fifth rib to the xiphoid cartilage represents the lower border of cardiac dulness, while its limit on the right was the median line of the sternum. The urine passed was dark red in color, and of alkaline reaction, and amounted to sixty-four ounces in the course of twenty-four hours. The contained albumen formed fully one-half its bulk. Its specific gravity was 1006. It contained many granular and hyaline casts.

The attending physician regarded the case as one of a very curious and interesting nature. It was concluded that the kidneys were the seat of albuminoid degeneration, with catarrhal nephritis. The underlying constitutional taint seemed to be undoubtedly syphilitic. It was argued that the angina was an outcome of the systemic disease, but that the ozæna was presumably a manifestation of the catarrhal nephritis.

The case was regarded as an excellent example of those cases of hereditary syphilitic infection in which the poison is so diluted and the patient's constitution so robust that the disease does not show itself until well on towards middle life.

The indications for treatment were thought to consist in (1), the removal of the dropsy by large doses of jaborandi, and (2) in a nourishing and easily digestible diet. Buttermilk, oatmeal gruel, and light broths were ordered as foods.

After the dropsy had largely disappeared minute doses of the bichloride of mercury, with the iodide of potassium, were administered; at the same time cod-liver oil was given in combination with the iodide of iron. The patient was much improved.

THE TREATMENT OF ORGANIC HEART DISEASE.

In those instances where there is a maximum amount of cardiac force, with a minimum amount of valvular lesion, cardiac sedatives are regarded as the remedies par excellence. Veratrum viride, aconite, the bromide of potassium, and other bromides are given in small and continued doses. The need of cardiac sedatives has been found to be most marked in diseases of the mitral valve, where there is a marked tendency to hypertrophy of the left ventricle.

In these cases the diet allowed is cooling and restricted; circulatory and nervous stimulants are avoided. If the general system is plethoric a saline purgative is administered. The diet, though restricted, is not reducing, *i. e.*, the blood is not reduced in quality by it, though it is of such a kind as to be easily digested.

Where the valvular lesion has been the result of an endocarditis contracted in early life, it has often been found possible to accomplish the greatest amount of good by continuous doses of the iodide of potassium. This treatment has often cured young children with hypertrophied left ventricles and mitral disease.

In those cases of heart disease showing impairment of power, and occurring late in life, the most important item of treatment is rest and the avoidance of all muscular effort. Such patients are given beds on the ground floor and never allowed to mount stairs. In

bad cases rest upon one floor and in one room is insisted upon.

The question of diet in the treatment of heart disease has received unusual attention in the medical wards of this hospital. The diet is studied in connection with the state of the system. When the digestion is good and the blood not in abundance, the patient is allowed bread, meat, fruits, and green vegetables quite freely. Some such patients have been benefited by a lean meat diet. No patient in this condition can digest oil well. In those cases where the digestion is not good, koumyss, buttermilk, or skimmed milk is given. Where the secretions are scanty and dropsy is present the diet prescribed is exclusively one of milk. Such patients are not allowed to eat much at a time, but take food frequently and in small quantities.

Where spasms of cough and of dyspnoea occur at night the patient is only given a small amount of stimulus and liquid nourishment for some hours before going to bed.

(To return for a moment to the question of rest. In some mild cases of heart disease, gentle, moderate walking is strongly advised, but in no instance is needless running hither and thither allowed.)

For the relief of the various congestions consequent upon heart disease counter-irritants are applied over the affected part. Where nervous and head symptoms predominate dry cups are applied to the nape of the neck. In pulmonary congestion muriate of ammonia is given internally in addition to the external counter-irritation. The bromides are used in cerebral congestions. When the stomach is congested, blue mass is prescribed.

When the appetite is poor, the stools insufficient, the liver tender upon palpation, and the secretions of the intestines scanty, blue pills, followed by a saline laxative, is a favorite remedy. Renal congestion is put a stop to by digitalis, together with a saline diuretic.

When the system is in an anæmic state, when the blood is watery, and when it is deficient in red globules, iron is given with advantage. Active plethora is always regarded as a counter-indication to the use of iron. The iron, when given, is administered in the form of a laxative ferruginous water, or a diuretic ferruginous mineral water.

In the treatment of the various dropsies complicating heart disease, cups, blisters, iodine painted on the surface, or iodine with croton oil is used.

In some cases the dropsy is entirely cured by rest and a skimmed-milk diet.

In cases of anasarca the most rapid relief is obtained by the use of jaborandi. Where the heart is so weak that jaborandi cannot be used, resort is had to laxatives, or warm vapor-baths.

Ascites is met by saline diuretics; hydrothorax by diaphoretics and diuretics. The patient's whole body is periodically examined physically, to see that no effusion is gaining headway.

If the dropsy becomes otherwise unmanageable, resort is had to operative measures, and the skin is tapped—a number of minute punctures being made in the skin with delicate needles.

Where there is a faulty condition of the nervous ganglia of the heart, associated with the organic disease, digitalis is employed with great benefit. Where one preparation of this drug is not borne by the stomach, another is substituted. Where the separate contractions of the heart are evidently inefficient, and the pulse is weak and small, digitalis has proved itself an unrivalled remedy. The usual dose of the

tincture is gtt. x.; of the infusion, f 3 i.; and of digitalin, gr. $\frac{1}{2}$ every three hours.

Belladonna has been of service where the heart's action is strong but irregular. Where the heart muscles are weak and passive congestions rife, strychnia and quinia are prescribed.

Progress of Medical Science.

CHLORIDE OF BARIUM IN THE TREATMENT OF INTERNAL ANEURISM.—A case of abdominal aneurism successfully treated by chloride of barium is reported by F. Flint, M.D. The patient, a married lady, aged sixty-five, was first seen in February, 1878, and the diagnosis was confirmed by several professional gentlemen, including Mr. J. W. Teale. For five months Tufnell's treatment was tried, and rigidly carried out, without producing the slightest improvement. Chloride of barium was then selected as a probably useful remedy, and given in doses of one-fifth of a grain three times a day; after three or four weeks the dose was increased to two-fifths of a grain, and maintained at this point during the remainder of its administration, with the exception of a very short trial of three-quarters of a grain. Within a fortnight after the use of the chloride was begun there was a marked diminution of throbbing, which was both subjectively and objectively evident; after nearly five months' continued use of the drug, the tumor was so reduced that it could scarcely be felt, and only a faint systolic murmur could be heard. Four or five months after the discontinuance of the drug, there was still a slight systolic murmur, but no throbbing; the pulse was about 72, and it had entirely lost its unnatural tension.

Mr. J. W. Teale has recently seen the case again, and expressed himself highly gratified with the change in the patient's state. So that testimony can be borne by an independent, trustworthy practitioner to the accuracy of the diagnosis and the reliability of the improvement.

In large doses, two drachms and upwards, chloride of barium paralyzes the heart and great blood-vessels; in doses of about a grain it is a stimulant; the dose selected was less than the stimulating dose, and Dr. Flint thinks he might have done better by adhering to the first amount given. Instead of increasing it. The drug appears to have a decided affinity for the muscular coat of the arterial system, and it probably restored tone to the diseased portion of the arterial coat, and thus gave rise to consolidation of the weakened wall. In the case in question, the aneurism appeared to be fusiform rather than sacculated, and therefore deposition of fibrin could not very readily take place. Perfect rest is essential to any medical treatment, and it would be well to try Tufnell's diet alone at first, and afterwards to adhere to it as far as possible during the use of the drug.—*The Practitioner*, July, 1879.

POWDERED ALOES IN THE TREATMENT OF WOUNDS OF JOINTS.—Dr. E. Millet used powdered aloes in a case of severe injury to the fingers with most gratifying results. The second phalanx of the index-finger was torn from the first, a strip of skin about a centimetre in width, and the deep flexor tendon being all that served to unite them. Recollecting that the veterinary surgeons used powdered aloes with good success in the treatment of wounds of joints, Dr. Millet

placed the injured finger on a splint, and covered the wound with the drug. Twice, only, in a fortnight was this simple dressing renewed. The wound healed kindly without any local pain or inflammation, and almost without suppuration. When the splint was removed there was considerable motion in the joint, and it is thought that time and daily use will restore it to its full power. It is thought that the aloes acts in two ways—by assisting cicatrization and by excluding the air; to the latter action was probably due the almost instantaneous cessation of the acute pain from which the patient was suffering before the application. The simplicity of the dressing, requiring but infrequent renewing, is not one of its least recommendations.—*Revue Médicale*, July 26, 1879.

ANEURISM OF THE AURICLE OF THE RIGHT EAR.—M. Weinlechner records a case of aneurism of the auricle of the right ear, for the relief of which he ligated the primitive carotid. Six months later the skin of the affected part had returned to its normal condition, and the patient was free from the tinnitus aurium, and the headache from which he had suffered for a number of years.—*Gazette des Hôpitaux*, June 28, 1879.

PYONEPHROSIS WITH EXCRETION OF FLUID FAT AND HÆMATOIDIN-CRYSTALS IN THE URINE.—Ebstein, of Göttingen, reports this remarkable case: The patient, a woman, was attacked suddenly with fever and pain, attended by the development of a tumor in the left side of the abdomen. The acute symptoms passed off in a few days, but seventeen days after the outbreak of the affection hæmaturia set in, accompanied by pain, at first referred to the tumor and afterwards to the left ureter and the bladder. The sediment, at first consisting of pure blood, later on became more and more purulent, and then numerous fat-drops and hæmatoidin-crystals were observed in the urine. The urine, at first scanty, steadily increased in quantity, and at the same time the tumor progressively diminished in size, but it had not entirely disappeared at the time the patient left the hospital. The tumor was thought to be due to a pyonephrosis of the movable left kidney. The excretion of fat persisted for several weeks. It occurred in the form of clear, golden yellow drops floating on the surface of the fluid; after the urine had stood for some time they presented signs of coagulation and crystallization. They consisted of a mixture of the oleate, margarate, and palmitate of glycine. The urine contained also hæmatoidin-crystals, a very rare constituent; they were found along with fat globules in the ragged flakes that were passed abundantly in the urine, and also mingled with the fat floating on the surface of the fluid. Prof. Ebstein ascribed the fat to a fatty degeneration within the tumor, and the hæmatoidin-crystals to the preceding hemorrhage. He refers to a case reported by Mettenheimer, in which, after a sudden attack of hæmaturia, accompanied by the development of a tumor in the region of the kidney, fat drops were observed in the urine for several days, but no hæmatoidin-crystals were found.—*Berl. klin. Wochen.*, July 7, 1879.

THE TREATMENT OF METRORRHAGIA BY CAFÉ NOIR.—Després reports two cases of intractable metrorrhagia, in which he prescribed six cups of strong infusion of coffee in a single day, with perfect and immediate success, the hemorrhage ceasing within twenty-four hours. He thinks the caffeine contracted the heart and blood-vessels.—*Medical Times*, August 2, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, September 27, 1879.

MEDICAL TEACHING.

An eminent member of our profession has said that the knowledge which a medical student obtains while in college has but little practical value.

Another eminent member of the profession has said that a man is just ready to begin the study of medicine after he has practised it five years.

These are the opinions of two men who have seen much of medical students—one has been a public teacher in medicine for many years—and they are the result of mature and prolonged experience and observation.

The first statement is based on experience obtained in one of the first medical colleges in this country, together with careful observations respecting how much of the knowledge then acquired was subsequently of practical value in the diagnosis and general management of disease. He maintains that the general plan of medical teaching is radically wrong and practically worthless, for the reason, that at no time during the entire course of public instruction does the student receive instruction in the methods of observing morbid phenomena and the sources of error in investigating the histories of cases. In other words, the medical student may go out from his alma mater bending under honors and laden with classical knowledge regarding the phenomena of disease, yet when he approaches the bedside of the sick he finds that his well-treasured and finely-spun digest of medical lore cannot be used; that he is obliged to begin and study for himself, and that his success depends largely upon his ability to work out his own salvation.

In this sweeping belief there are some grains of truth. We believe that it is the uniform experience of medical men, when they first enter into practice, to find that they are called to manage cases which "are not described in the books," and lack all the classical appearance which, from their teaching, they have been

led to believe nearly every case possesses. Such cases, however, go to make up the mass of business done by the general practitioner, and in a certain sense it may be said, and truthfully too, that his whole course of medical instruction is of no assistance in solving these perplexing problems, because he has not heard anything concerning them in the lectures, nor can he find any description of them in the books. However, to unravel the thread we have only to ask, Is not the young practitioner more competent to undertake the task of reaching the unknown quantity in such cases than if he was not the possessor of his school knowledge? We think he is; but with his five years of experience contemplated in the second statement, he is doubtless far better prepared to pursue his studies and examine his cases than when he first commenced.

It is not disrespectful towards medical colleges to say that their course of instruction is not all that is desired in order to fulfil the best interests of the medical profession. Deficiencies exist—but no more, perhaps, than belong to other organizations of like character. Errors, however, are being slowly corrected and wants supplied, a fact which betokens a healthy root, and as the pruning and grafting goes on the fruit will certainly improve in quality. We are near the time when medical colleges commence their regular course of instruction, and there are one or two points to which we wish to direct attention, believing that a careful consideration of them will do much to disprove the first statement with which we began, and also to disarm the second.

In the first place, and in general, medical teaching to medical students is not sufficiently elementary.

An eminent, old, and successful teacher in medicine has said that each year he makes his instruction more and more elementary, simply because he has found, by experience, that it is that from which the student derives the most practical benefit. An eminent, old, and successful teacher in surgery has said that when he first began to teach, he studied to make his lectures finished rhetorical efforts, and sought especially for rounded sentences. To his surprise, chagrin, and profit, when he came to examine his students for the degree he found that they knew little or nothing concerning surgery. In the experience of these two men there is sufficient to illustrate our meaning, and it is this: that he who instructs medical students in elementary principles, and does it in the simplest language, is the most successful teacher, providing he enforces by demonstration what he has to say. To dwell on subjects difficult to acquire, which are speedily forgotten, and have no practical value when acquired, is not only an unprofitable consumption of the time of the student, but it does him a lasting wrong inasmuch as it gives him knowledge he does not need, and deprives him of a personal share in clinical study and in an acquisition of that knowledge

of disease and remedies which is to serve him for immediate use and in emergencies.

This brings us to the second point to which we direct attention, and that is, the power of demonstrative teaching. A large portion of the medical teaching of the present day lacks the force of demonstration. It is descriptive rather than demonstrative. There is nothing that does more toward correcting special views and operations and the exaggerated and faulty notions which get into the minds of medical students, and also medical men, than demonstration. If the student can see a typhoid ulcer, a micrococcus, the fundus of the eye, an inflamed tympanum, a urinary cast, a urinary crystal, a vesico-vaginal fistula; if he can touch a displaced uterus, a prolapsed ovary, an abdominal tumor; if he can hear a cardiac murmur, a crepitant, subcrepitant or bronchial r  le, a pericardiac or pleuritic friction sound; if he can see his teacher map out by percussion the heart, the liver, the spleen, the fluid in a pleuritic cavity, or the consolidated portion of a lung, it will do more toward imparting instruction which will prove of value to him when he goes out to meet the maladies of human life, than hours of unaided talk or reading. Even the illustrations with which text-books abound cannot be fully appreciated, and are very liable to give erroneous impressions until the original has been seen. What sways and convinces an audience, even of experienced medical men, more than ocular demonstration? The teacher who simply stands by a patient in a clinical amphitheatre and discourses learnedly, and correctly it may be, regarding the precordial triangle, the physical signs of subacute pleurisy, or ascites, a foreign body in the eye, the appearance and feel of a chancroid or chancre, a urethral stricture, an abdominal tumor, scabies, eczema or varicella; tells of the manner in which a roller bandage should be turned in order to look elegant and fit well, of how a plaster-of-Paris dressing should be applied,—and makes no effort to demonstrate these things, is thoroughly untrustworthy, and should not be tolerated by the ordinary medical student. Such teachers have too much the appearance of those who teach, or rather meagrely go through with a formality in teaching, simply to obtain the money that a medical student may have. The number in the latter class we charitably believe is small; but they are like a *non compos* on a mountain, to whom everybody looks small, and who looks small to everybody else.

Dr. Andrew Clark, from whom our readers heard when he made his visit to this country, in his address before the Section in Medicine of the British Medical Association, refers to this point, and notes it as one of the deficiencies in the present system of medical education. He says: "Medicine is an art, and its end is practice, and the worth or worthlessness of any system of education must be tried by the degree in which it helps or hinders this end." One of the vicious methods

which the system sanctions is that "the student is told and not taught." "The teacher, instead of making the student follow him step by step in his methods of observing, collecting, comparing, testing, and recording facts and of reasoning thereon, leaves them to be learned by being described, forgetful that they can be learned only by being practised."

When in the fulness of time it is insisted that medical students shall receive more thorough instruction in the practical elements of the science and the art of medicine, and shall be made to share in clinical study, the people will be furnished with more medical men who possess trustworthy knowledge regarding the powers of nature and of art in bringing about recovery from disease. The knowledge then acquired as a student will be of positive value as a practitioner of medicine, and the first five years of professional life will bring with them a reward commensurate with the labor performed.

THE CARE OF HABITUAL DRUNKARDS.

THE question of what should be done with habitual drunkards is still a very unsettled one, and is rightly claiming the attention of both medical and legislative bodies. In this country the prevalent opinion amongst those especially interested in the matter is, that inebriety is a disease (rather than a vice), and that its victims should be regarded and disposed of in much the same way as insane persons. Inebriates, it is claimed, are not in many cases to be considered responsible for their actions, and should therefore be taken charge of by the State and placed in asylums appropriate for their treatment. There are, we believe, but two asylums for inebriates in this country where the theory that drunkenness is a disease is not adopted as the basis of management; and we have several States where this placing of the inebriate on the same footing with the lunatic has been more or less rigidly adopted. In Connecticut, the idea is completely embodied in the law, and habitual inebriates can be committed by the court, upon proper evidence, to an asylum. In this State the law is less radical, nevertheless it provides that persons who have become incompetent, through habitual drunkenness, to take charge of their affairs, shall be put in charge of the court. Several other States have laws which, in like manner, class the victims of alcohol with idiots, lunatics, and persons of unsound mind.

Instigated by the general revival of interest in the temperance question in England, and perhaps partly by our progress in the matter, the British Medical Association appointed a committee, a year ago, to secure some legislation upon this subject of habitual drunkenness. There were then in England no laws in regard to the care of inebriates, and but few private asylums, these being such as only the wealthier classes could patronize. The question of greater provisions for, and compulsory treatment of inebriates, was

brought before Parliament at its last session. After much struggling a bill was passed which provides for the establishment of inebriate asylums, granting, however, only a voluntary entrance to them. An inebriate can commit himself, and he must commit himself for a certain period of time; but he cannot be compelled to enter the institution. This result is by no means all that was desired or sought for; but no more could be obtained, and it is hoped that it may be the entering wedge for something better in the future. What the committee wished, and will continue efforts to obtain, is the establishment of asylums to which every inebriate who has reached the stage when his appetite is supreme and he is unable to take charge of his affairs, shall be at once committed for a considerable period of time.

While it is undoubtedly a fact that the weight of medical opinion is in favor of considering and treating inebriety as a disease, and of providing compulsory care for its subjects, there is some very high authority upon the other side. Dr. Bucknill, who visited this country in 1875 and went through our lunatic and inebriate asylums with a free lance, declares drunkenness to be a vice and only the *cause* of disease. He speaks depreciatingly of the great prominence usually given to heredity, and looks upon the ordinary inebriate asylums as institutions which only coddle drunkenness and patch up the evil they pretend to alleviate.

The practical importance of definitely determining whether drunkenness be a disease, or only a cause of disease, is not so great as specialists would have us think. When a man has become a dipsomaniac, has ruined himself and family, and is both a nuisance and a danger to society, he needs to be taken care of without regard to fine pathological distinctions. Before settling the pathology of inebriety, therefore, we can urge the propriety of legal provisions for its victims. The British Medical Association is working in the right direction. Present asylums may be poor, and the difficulties of obtaining proper legislation for inebriates great, but this does not affect the fact that persons whom alcohol has unfitted for every social and domestic duty, and who are degraded and made violent by its indulgence, need and should have State or local supervision, accompanied by such measures as will not punish and still further degrade, but will tend to cure and restore them to usefulness.

THE NEW YORK PATHOLOGICAL SOCIETY.—The third volume of the Transactions of the Society is now ready.

DR. GILMAN KIMBALL.—On the evening of September 20th Dr. T. Gaillard Thomas, of this city, gave a brilliant reception in honor of Dr. Gilman Kimball, of Lowell, Mass., who is the oldest ovariectomist now living in this country. A large number of eminent members of the profession were present.

Reviews and Notices of Books.

A TREATISE ON HYGIENE AND PUBLIC HEALTH. Edited by ALBERT H. BUCK, M.D., American Editor of Ziemssen's Cyclopaedia of the Practice of Medicine; Aural Surgeon to the New York Eye and Ear Infirmary. In two volumes. New York: William Wood & Co. 1879.

THE second volume, like the first, has two parts. The first is devoted to Occupation, and the second to Public Health. The first article in Part I. of the second volume is on the Hygiene of Occupation, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. Dr. Tracy considers his subject under three heads: I. Occupations involving the introduction of deleterious matters into the body; II. Occupations involving exposure to conditions that interfere with nutrition; and III. Occupations involving exposure to mechanical violence.

There are some very interesting statements in this article, particularly those relating to the inhalation of gases and vapors. It is well written, and has a bibliography.

The second article is on the Hygiene of Camps, and was written by Charles Smart, M.B., C.M., Assistant Surgeon United States Army. The camps of military and civil life are considered in this article, which is illustrated, and is written in a practical style. The transmission of malarial fever by means of drinking-water is spoken of here, and the writer also throws a shadow of doubt over the reported prevalence of typhoid fever—"simple or masked by malarial concomitants"—among our troops during the late war. He also believes that the germ theory does not involve such exclusiveness as forbids the possibility of a *de novo* origin of typhoid fever.

The third article is on the Hygiene of the Naval and Merchant Marine, by Thomas J. Turner, M.D., Medical Director United States Navy. The writer says that naval hygiene has for its province all that concerns the health of a special class whose occupation is pursued under conditions which are so arrayed as to be in almost absolute defiance of all sanitary laws. Nevertheless it is among these men that preventive medicine has demonstrated its economic and social value, and these are exhibited in his remarks on the ship, the sailor, the air, the water, the food, the clothing, the light, the sleep, the discipline, and the diseases peculiar to ship-life. It has a bibliography.

The Hygiene of Coal Mines is the title of the fourth article, and was written by Henry C. Sheaffer, Coal Editor of the *Miners' Journal*, Pottsville, Pa. In this we find a sketch of the work, habits, and mode of life of the working miner, and the conclusion is reached that coal miners have as good average health, as fair percentage of longevity, and as low a death-rate as any other class of manual laborers.

The fifth article is on the Hygiene of Metal Mines, and was written by Rossiter W. Raymond, Ph.D., Editor of the *Engineering and Mining Journal*, New York City. This is a short article, in which the writer refers to physical exertion, air, and temperature, and gives some general conclusions, and also makes references to metallurgical works. It is the last article in Part I. of Vol. II.

The first and second articles in the second part of the second volume are on Infant Mortality and Vital Statistics, and were written by Thomas B. Curtis,

M.D., of Boston, Mass., Surgeon to Out-patients at the Massachusetts General Hospital. In the first article the writer refers to the methods of estimation, the predisposing causes to infant mortality, and the principal diseases of infancy which especially affect the rate of mortality.

In the second article is a large accumulation of valuable statistical material.

The third article is on Adulteration of Food, and was written by Stephen P. Sharples, S.B., of Boston, Mass., Chemist, Inspector of Milk for the City of Cambridge. In this article we find a concise account of the apparatus and appliances found useful in this branch of research, the adulterations of the more common articles of food, with the methods of detecting the same. The article has a bibliography.

The fourth article is on Public Nuisances, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. This subject is discussed under the following heads: I. Offensive trades, such as the keeping and the killing of living animals, the storage and the handling of mineral matters, carpet-cleaning, street-sweeping, etc.; II. Offensive processes, such as fat-rendering, bone-boiling, varnish-making, smelting, assaying, distilling, etc.; and III. Other nuisances, such as dead bodies, privy-vaults, cemeteries, diseased animals, prostitutes, etc. The article is exceedingly interesting; it has a bibliography, and also a few illustrations.

The fifth article is on Quarantine, with reference solely to seaport towns, and was written by S. Oakley Vander Poel, M.D., Health Officer of the Port of New York. It is from the pen of one who has had large experience, and is familiar with the subject on which he has written.

The sixth article is on Inland Quarantine, and was written by S. S. Herrick, M.D., Secretary of the Louisiana State Board of Health. In the consideration of this subject the author refers solely to yellow fever and cholera. Here we find an interesting discussion of the origin of yellow fever and the legislation necessary for the protection of communities.

In both articles on Quarantine the value of preventive medicine is recognized.

The seventh article is on Small-Pox and other Contagious Diseases, such as scarlet-fever, measles, and whooping-cough, and was written by Allan McLane Hamilton, M.D., Sanitary Inspector of the Board of Health, New York, and Bache McE. Emmett, M.D., New York City. This is a brief article, and is well adapted to a work of this character.

The eighth article is on the Hygiene of Syphilis, and was written by F. R. Sturgis, M.D., Clinical Lecturer on Venereal Diseases in the University of New York, etc. This is a five-paged article, in which the subject is considered under the following heads: 1. The contagious character and danger resulting from the disease; 2. Its effects upon health and longevity; and 3. The means adopted for its control.

Disinfectants are considered in the ninth article, and it was written by Elwyn Waller, Ph.D., Chemist to the Metropolitan Board of Health, New York. After an appropriate introduction the different agents in use for disinfection, such as heat, bromine, sulphurous acid, metallic salts, etc., and their application, are considered.

The tenth article is on Village Sanitary Associations, and was written by Roger S. Tracy, M.D., Sanitary Inspector of the Board of Health, New York. This is a brief article, and it hinges on preventive medicine.

Dr. D. F. Lincoln, M.D., of Boston, Mass., wrote

the eleventh article, which is on School Hygiene, and in which the subject is treated under the heads: Site and points in construction of the houses, heating and ventilation, drainage, contagious diseases, hygiene of the eye, desks, seats, mental application and bodily exercise. This article has a bibliography, and although the last in the volume, it is not the least in value. If these two volumes could enter every house, and there be studied, an influence for good would be exerted which is beyond ordinary estimation.

PHOTOGRAPHIC ILLUSTRATIONS OF SKIN DISEASES. By GEORGE HENRY FOX, A.M., M.D. Complete in Twelve Parts. Parts III. and IV. New York: E. B. Treat, No. 805 Broadway.

PART III. contains descriptions and illustrations of Fibroma pendulum, Varicella, Zoster pectoralis and lumbalis, and Eczema universale.

Part IV. contains descriptions and illustrations of Leucoderma, Chromophytosis, Favus capitis and corporis, and Eczema cruris.

The illustrations of fibroma and varicella are very good, those of zoster poor, and that of eczema universale excellent, so far as extent goes, but only moderately good for conveying a correct impression regarding the actual appearance of the disease.

The illustrations of leucoderma and chromophytosis are very good, those of favus still better, and that of eczema cruris is well calculated to convey an incorrect impression. The skilled artist has in some instances, it seems to us, used his brush a little too freely.

A CLINICAL TREATISE ON DISEASES OF THE NERVOUS SYSTEM. By M. ROSENTHAL, Prof. of Diseases of the Nervous System at Vienna. With a Preface by Professor Charcot. Translated from the author's revised and enlarged edition, by L. PUTZEL, M.D. New York: Wm. Wood & Co. 8vo. Pp. 278. 1879.

WE have in this book another and very valuable addition to "Wood's Library of Standard Medical Authors." The book, though essentially a clinical treatise, gives a very complete account of the pathology of each disease, as well as of such physiological points as are necessary to an understanding of the symptoms. The present volume is the first of two, and includes only the organic diseases of the nervous system. These are treated of in a clear and concise manner, without theorizing or flourish of rhetoric; nor is the book encumbered with extraordinary cases. The chapter on tumors of the brain is especially good, and under the head of symptomatology the author covers nearly the whole ground of cerebral localization. In the matter of treatment, especial attention is called to the value of hydro-therapeutics in chronic nervous diseases. Such measures are steadily gaining ground in Europe as helps in treatment, and their prominence in the present work will add much to its value. In his preface, Prof. Charcot compliments the author on the directions given in the book regarding the use of electricity, and admits that Dr. Rosenthal has taught even the countrymen of Duchenne some useful indications. The translator has done his work well, and made the book into very good English. He has added quite a number of illustrations, not contained in either the French or German editions, and has shown excellent judgment in the selection of such cuts as would be most likely to help the student.

THE ACADEMY OF MEDICINE in Paris has awarded a prize of \$400 to M. Burg for his researches in metal-therapy.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

FORTY-SEVENTH ANNUAL MEETING.

Section in Surgery.

W. K. TANNER, M.D., F.R.C.S.I., PRESIDENT, IN THE CHAIR.

WEDNESDAY, AUGUST 6TH.

THE DIAGNOSIS AND TREATMENT OF JOINT DISEASES IN THEIR VARIOUS STAGES

was the subject for discussion, which was opened by Dr. LEWIS A. SAYRE, of New York. Dr. Sayre restricted his observations to the joint diseases generally termed scrofulous, such as strumous disease of the ankle-joint, white swelling of the knee-joint, hip-joint disease, and Pott's disease of the spine. The position taken by the doctor was, that those diseases were essentially of traumatic origin. If they depended upon constitutional dyscrasia, how was it that many patients, after recovering from hip-joint disease, caries of the spine, etc., were ever afterwards sound and healthy? Moreover, the family history of many such cases could be traced back for many generations without finding any trace of scrofula or any other debilitating affection. The degenerative processes went on, in and about a slightly injured joint, and produced constitutional disturbance before the local manifestations attracted attention; therefore, by most, those local manifestations were regarded as the result of the constitutional dyscrasia. Even in strumous subjects, some local injury must occur before joint-disease developed, and in such subjects, specially, a very slight injury might be followed by very disastrous consequences. Scrofula, whatever it might be, exerted a most pernicious influence for evil after traumatism had done its work. The great and essential factors in the treatment of joint-diseases were extension and counter-extension, rest to the parts, tonics, friction and elastic compression, aspiration, free incision, exsection.

Dr. BARTON, of Dublin, who had seen a large number of cases of *morbus coxarius* in the children's ward in his hospital, was convinced that, on the whole, Dr. Sayre's theory was correct—that the disease arose from some injury, and took its tone afterwards from the particular diathesis from which the patient was suffering.

Dr. J. T. HODGEN, of St. Louis, Mo., thought that those who accepted the theory of traumatism, and those who accepted the theory that joint-diseases occurred only in strumous subjects, would accept the proposition that if this peculiar condition of system was not present, rendering the person liable to such diseases, no amount of force would develop them; at which it did exist, a very trifling injury might use *morbus coxarius*, or other joint disease.

Dr. E. H. BENNETT, of Dublin, thought that the opinions of surgeons were very much with Dr. Sayre, specially with reference to the traumatic origin of joint disease as contrasted with its strumous origin.

Mr. OWEN, of London, believed that Dr. Sayre went too far in saying that each case required an exciting cause. Dr. Sayre had also said that he was inclined to believe that those cases were of strumous origin because so many of them recovered completely; but surely, if a man having strumous disease

of the testicles could recover when they were removed, strumous disease of the joint might be just as curable.

Dr. WHEELER, of Dublin, did not agree with Dr. Sayre regarding the effect of motion in the treatment of joint disease.

Mr. WM. ADAMS, of London, agreed with Dr. Hodgen, and thought there was no very wide difference between Dr. Sayre and Dr. Gross on the subject of scrofula. He himself had been in favor of the traumatic origin of *morbus coxarius*, but he had also felt that it must be grafted on the constitution. He had largely adopted the extension principle. The treatment in that country seemed to lead to immobility, fixation, and anchylosis; but American surgeons allowed that motion which prevented anchylosis, and he thought that surgeons in Great Britain had a good deal to learn in that respect.

FRIDAY, AUGUST 8TH.

WILLIAM MACCORMAC, F.R.C.S., Vice-President, in the Chair.

ON THE CAUSE OF EVERSION OF THE LIMB AFTER FRACTURE OF THE NECK OF THE FEMUR.

Mr. EDMUND OWEN, F.R.C.S., of London, read a paper on the above subject, and illustrated his theory by means of diagrams. Sir Astley Cooper had attributed the eversion to the superior strength of the muscles of external rotation; and his views, which had afforded an excellent working hypothesis, had been generally adopted by subsequent writers. Mr. Owen, however, asserted that the thick mass of muscles of internal rotation were more powerful than the muscles of external rotation, though the latter were much more numerous. That important fact he had ascertained by testing the relative power of the two groups of muscles by means of a specially arranged spring-balance and indicator. His theory had the following factors: The posterior surface of the thigh of a man, lying supine on a flat surface, hardly touched that surface, the weight being transmitted partly by the pelvis, partly by the calf. The centre of gravity of the limb was well to the outer side of a straight line connecting the middle of the acetabulum and the heel. In search for stable equilibrium, the sound limb rolled outwards until further eversion was checked by the front of the capsular ligament rendered tense. In that position the limb was found in sleep, after paralysis, and in death. Division of the front of the capsule was followed by still further eversion, and the neck of the femur being divided inside the capsule, the limb rolled over on to its outer side. Similarly, when the neck of the living femur was broken the limb tumbled into the position of eversion, and muscular action had nothing to do with its position. The administration of chloroform was never followed by a righting of the limb. Extreme violence might leave the limb in a position of inversion after the fracture had been produced; but when the fragments were unlocked eversion at once declared itself and persisted. When the femur was fractured below the level of the lesser trochanter, eversion was still a most characteristic feature of the lesion.

Mr. COOPER FOSTER, of London, concurred in Mr. Owen's theory, and the CHAIRMAN remarked that Mr. Owen had proved his case by observation and by experiment.

ON THE IMMEDIATE CURE OF HERNIA BY A NEW INSTRUMENT.

W. D. SPANTON, Esq., M.R.C.S., of Henley, read a paper on the above subject, in which, after alluding

to the great frequency of hernia and the comparatively small proportion in which any attempt was made to cure the affection, he referred to the methods hitherto practised, under four heads: 1. Contraction of the skin and sac by excision, cauterization, or ligature; 2. Closure of the sac by adhesive inflammation; 3. Plugging the inguinal canal; 4. Bringing the walls of the canal together, which was first alluded to by Sir W. Lawrence, and brought into practical notice by Mr. John Wood, and was commonly known as Wood's operation. The great object being, according to Wood, to establish "complete union along the whole length of the canal." Mr. Spanton had devised an instrument by which that result might be obtained with greater certainty and safety than by any of the methods that had hitherto been employed. The instrument was of the shape of an ordinary corkscrew, and was introduced from above downward in such a way as to bring together the outer and inner pillars of the inguinal canal at three or four different points, and at the same time to secure the invaginated sac or fascia, which was separated subcutaneously in Wood's method, in the inguinal canal for a sufficient length of time to ensure complete occlusion of the hernial opening. The author related fourteen cases in which the operation had been performed, and, in all but one, the result had been quite satisfactory. In not a single instance had any dangerous symptoms resulted. The operation might not in all cases succeed perfectly, but it was a satisfaction to know that it was almost impossible to incur the odium of having, by it, left the patient so that his last state was worse than the first. He had observed in most cases a temporary swelling of the scrotum, sometimes to a considerable extent, but no ultimate inconvenience had resulted from the temporary pressure on the spermatic cord. If, at any time, injury was feared, the instrument could be easily withdrawn, the surgeon being content with what had been accomplished.

MR. ALCOCK, of Burslem, thought that Mr. Spanton's operation was incomparably easier than Mr. Wood's. He had performed the operation on a young woman on Thursday, and on Sunday there were no abnormal symptoms, and consolidation was gradually taking place.

ANALYSIS OF ONE HUNDRED CONSECUTIVE CASES OF OPERATION FOR STONE IN THE BLADDER.

W. F. TEEVAN, B.A., F.R.C.S., of London, reported a series of one hundred consecutive cases of operation for stone in the bladder, of which three were females, twenty-two were boys, and seventy-five were adult males varying from seventeen to seventy-seven years of age, the majority being between sixty and seventy years old. When he began to operate for stone in the bladder in February, 1893, he had two distinct objects in view: 1. He proposed to crush wherever practicable, in order to ascertain what were the limits within which it might be advantageously employed; and 2. To cut out a stone rather than extract it by the so-called method of dilatation after the primary incision had been made.

Of the twenty-two boys, the youngest was eighteen months old, the eldest fourteen years. All were operated on by lateral lithotomy. All recovered, and only three were troubled with incontinence of urine after the operation.

Of the seventy-five men operated on, fifty-five were relegated to lithotripsy. The fifty-five cases occurred in fifty different men. In one case lithotripsy was attempted but not persevered with, the man being relegated to lithotomy. In one case lithotripsy was sup-

plemented by median lithotomy. The patient, aged 68, died from exhaustion due to cystitis. In one case cystotomy was performed with success, one year after lithotripsy, for the cure of local irritation. Most of the cases were complicated by cystitis, enlarged prostate, stricture of the urethra, atony of the bladder, or by renal disease. Six patients died in his hands; three from the operation, three from other causes. Five patients were troubled with local irritation after the removal of the calculi. All the rest were cured. Lateral lithotomy was performed on thirty-four patients; twenty-two were the boys who all recovered. Of the twelve adult males six recovered and six died. Medio-lateral lithotomy was performed on two gentlemen. One died and one recovered. The medio-bilateral operation was performed on one patient, who died from suppression of urine. In two cases lithotripsy, at one sitting followed immediately by external urethrotomy, was performed. Both patients making good recoveries.

He would at all times prefer to cut out a stone rather than to tear it out. He did not believe that dilatation could be effected. As regarded hemorrhage, although there might be a great gush of blood at first, it would cease immediately, and he would not use any tube.

A NEW METHOD OF USING ICE.

DR. EDWIN ANDREW, of Shrewsbury, pointed out the advantages in certain surgical and medical cases of employing medicated ice. He thought the cold was rendered more effective by being combined with the active principles of drugs, and by freezing various medical solutions. In that manner ice might be rendered highly antiseptic, caustic, or styptic. In medical cases, especially of the throat, stomach, and hemorrhages from internal organs, ice might be thus pleasantly used to relieve symptoms and at the same time convey medicine as food to the stomach when the latter would resist them in any other way.

Correspondence.

LITHOLAPAXY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Will you allow me to correct an erroneous statement contained in one of your recent editorial articles upon the new lithotripsy (Vol. 16, Nos. 7-8)? It relates to the lithotrite devised by me. This particular instrument is not indispensable for the performance of litholapaxy, since almost any lithotrite can be made to crush the stone—the novel and essential characteristic of the new method being the complete evacuation of the calculus by a long sitting and a large catheter. But, although the error referred to is unimportant, it should, I think, be corrected in deference to surgeons who use my non-impacting instrument.

The writer says, referring to the lock of this lithotrite, "the liability to break is a serious objection." . . . "Thompson's catch cannot be broken in this manner." Now, this is a mistake. My instrument, although employed by myself and others upon stones both large and hard, has never been, as your writer states, "broken." Nor do the parts he alludes to (the old screw-blocks of Charrière and their boxes) differ in strength from those of all other lithotrites.

inasmuch as they are identical in all of them. If one breaks, others must be liable to the same accident.

This writer has misapprehended a trivial occurrence, incidentally mentioned many months ago, in connection with the then novel method. This was what happened: Tiemann & Co. borrowed from me, for examination, a lithotrite just arrived, one of the first of my instruments made in Paris, and lent it for use. The French workman, to whom the lock was new, had miscalculated the width, in this combination, of the Charrière screw-blocks; so that when the instrument was locked and screwed up, these blocks had little or no bearing. They were at once lifted out of their boxes, just as they are purposely lifted out by the thumb and finger when they need cleaning. That was the whole of it. The skilful French maker, annoyed at the carelessness of his workman, made the lithotrite perfect in a few hours. And the surgeon, in whose hands the defective adjustment revealed itself, ordered one of my lithotrites from Weiss.

The error here corrected does not impair the general excellence of the other criticism, it being quite possible that the writer should be a skilful surgeon without being perfectly familiar with the locks of lithotrites; just as a skilful navigator may not have investigated the construction of the chronometer he uses.

Several of the critical remarks of your able editorial writer are well founded. He rightly says that the evacuating process, though not more efficient, is drier and neater if all the water is kept inside the aspirator and all the air outside of it; which implies that there should be good joints and no leakage, with stopcocks at all the orifices, one of them being at the highest point to let air out easily. I would add, however, that it is important not to lose sight of convenience in other respects.

The progress of the new lithotritry was most liberally encouraged, at an early period, by New York surgeons. The attention now directed to some of the minor details connected with the instruments is rapidly contributing to their perfection.

Almost the only objection I have known made to the new method, either here or abroad, has been directed to the size of the instruments I generally use, which at first impressed persons accustomed to the use of Clover's aspirator and the English lithotrite as "clumsy" or "unwieldy." Large-sized catheters are absolutely indispensable, and are now so recognized. With regard to the size of the lithotrite, it is to a certain extent a matter of taste. My own instrument, with a wrist-lock, ball-handle, and non-impacting blades, is not necessarily larger than others. It can be had from Tiemann & Co. of any size the operator may prefer. I think, however, that large and hard stones will be found to require a more powerful instrument than those hitherto in use. In fact, it is very possible that a calculus should break a lithotrite. This accident happened from time to time in the practice of the old lithotritry, and we are now dealing with larger and harder stones. That is one reason for avoiding a slender construction, especially of the blades. But my chief reason for using a large lithotrite is the convenient command it gives of the stone. Having learned how easy, as well as safe, with proper care and skill, is the introduction of large instruments, I prefer to use a powerful lithotrite, to crush even a moderate-sized calculus, provided the blades are so constructed as not to become impacted. With a small stone or fragment, the choice of a lithotrite is wholly unimportant; while a bladder or urethra, if exceptional in any way, may require an exceptional

instrument. But I do not see why some operators still enjoin the use, in all cases, of the smallest or lightest lithotrite that can possibly be made to crush the calculus.

HENRY J. BIGELOW.

BOSTON, MASS.

JABORANDI IN A SEVERE CASE OF PUERPERAL ALBUMINURIA WITH CONVULSIONS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I was summoned hastily August 8th, at 12 M., to Mrs. H—, nineteen years of age, primipara, whom I found in bed, dressed, lying on her back, and breathing heavily. From her mother I obtained the following history: The patient, Mrs. H—, was her son's wife, who had come from a neighboring town to be delivered. She had complained for the previous fortnight of nausea and vertigo, with dimness of vision and occasional very severe pains in head, and even her best days were rendered unbearable by a general feeling of malaise—listless and lifeless—yet she got up mornings and was about the house, passed but little urine, but that this morning, August 8th, while sitting by the window she was suddenly, without warning or noise, seized with a fit, fell to the floor, and was carried to the bed unconscious, where I saw her. She was at about the middle of the eighth month of pregnancy, she thought. She was unable to speak or swallow, and could not be roused to consciousness; her face, feet, and entire legs were cedematous, and pitted deeply on pressure; the edema was very marked, the whole areolar tissue seemed infiltrated; the cervix I found was not dilated, but mostly effaced; passed catheter, but could obtain no urine; the skirts were wet with the urine, which had passed involuntarily in the first seizure; the bowels had moved in like manner; the convulsions followed each other at short intervals, and they were terrific to behold. She was a stout muscular blonde, and every muscle was engaged, the bloody, frothy mucus issuing from the mouth. During the intervals there was a heavy stertorous sleep, but no return to consciousness. The catheter was passed repeatedly, both before and after the fits, but could find no urine.

I gave by rectum 20 gra. hyd. chlor. and half drachm of fl. ex. jaborandi; applied ice to head; in half an hour gave by rectum 20 gra. chloral and 40 gra. brom. pot.; no effect on fits, they were severe and of epileptiform character. After an hour gave by hypodermic syringe 15 min. fl. ex. jaborandi; in half an hour repeated the dose, and in half an hour had profuse salivation and excessive diaphoresis. The convulsions were not altered; they seemed to be general and longer; respiration was labored, and dyspnoea distressing; there were numerous and loud bronchial and tracheal râles, but no interruption or cessation of fits; the salivation and sweating steadily going on. I then gave by inhalation sul. ether. I had seen before that the uterus was contracting, and could be easily felt through the abdominal walls; the ether controlled the attacks, but, owing to the great difficulty of respiration and bronchial obstruction, I dare not push it. On making examination found the os dilated and thin, membranes ruptured, the head presenting. When I applied the forceps, and delivered without difficulty a dead child (male), the placenta soon followed, the uterus contracted fairly. She had, up to the birth of the child, fifteen convulsions, but none after it; but now there was profound coma, pulse very feeble, respiration

noisy and short, dyspnea distressing. She died four hours after, unconscious, as she had been from the first convulsion. The case is, I think, remarkable in some respects.

First.—Unconsciousness from the first, and striking resemblance of the fits to epilepsy. She had never been epileptic.

Second.—The general character of the convulsions.

Third.—The absence of urine, the catheter being passed both before and after convulsions. There was ischuria after the first attack.

Fourth.—In a case of the severity and gravity of the above it would be too much to expect of any one drug, and in so short a time, to eliminate enough urea from the system to materially affect the fits, and I would not condemn hastily; it is a most remarkable agent, a powerful eliminative and febrifuge, and will with certainty produce its specific effects; in this case the temperature was lowered one degree; it also brought on, I think, contraction of the uterus. It had no effect on the convulsions, or on the kidneys. But I would not use it again because, 1st, from its weakening effect on the heart and pulse, venesection is contraindicated; 2d, from the great increase of bronchial secretion that it pours out, anesthetics are contraindicated, for it will weaken the heart and obstruct respiration if given in sufficient doses to eliminate urea, and I should not exchange the old-fashioned venesection and anesthetic, both of which its use seems to contraindicate. It did, at least, in the above case.

E. E. MATHER, M.D.

WILLIAMSTOWN, MASS.

"NEGATIVE PRESSURE."

TO THE EDITOR OF THE MEDICAL RECORD.]

DEAR SIR:—There is a certain expression which has come into use in connection with the physics of respiration and circulation, to which I desire to call attention. It is the, according to Dr. G. M. Garland (see introduction to his work on "Pneumodynamics"), "*scientific*" expression *negative pressure*.

The idea of *negative* force is absurd. Force is essentially positive. The term referred to is a very bad substitute for the popular "suction force." As every one knows, the active agent in "suction" is the pressure of the atmosphere outside of a more or less complete vacuum. To speak of *negative* pressure instead of *atmospheric* pressure is exactly equivalent to speaking of *the rising of the sun* when we mean *the rotation of the earth*. In common parlance either may be innocent enough; but anybody knows that in order to get a correct conception of astronomical facts we must discard the popular conception, and that it prevents confusion to discard also the popular expression.

In order to get any clear idea of the working of physical or any other laws, we must get a distinct conception of what, to use a tautological expression, the *positive* forces at work in producing a given effect are, and how they do their work. In order to do this, our language should express *exactly* the truth. To use a technical phrase which is based on a false idea—which involves a confusion between cause and effect—can only lead to mistiness and error. To call such a phrase "*scientific*" is a singularly flagrant abuse of terms.

Respectfully yours,

R. VAN SANTVOORD, M.D.

166 WEST ELEVENTH STREET.

RECTAL HEMORRHAGE IN INFANCY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Early in the morning of the 20th of August I was called to deliver a woman of her second child—there having been an interval of ten years since her last confinement. The mother was a well-nourished, vigorous woman, without any visible taint of previous constitutional disease.

The labor being rapid and comparatively easy, she was, about an hour after my arrival, delivered of a female infant weighing about eight pounds, and of perfect formation in every particular.

Everything went on well until the child was three days old, when the nurse directed my attention to the unnatural quality of the infant's stools.

I found that there had been a copious discharge of dark, tarry matter of such a character as I never before witnessed.

Supposing from indications then existing, that a moderate laxative was needed, I directed that half a teaspoonful of castor oil be given. Within two hours from the time I left the house another call came, requesting me to proceed immediately to see the infant. I then found a condition of things of which I have never read or heard. There were frequent and large evacuations from the rectum, now of strawberry-colored liquid, and about the consistence of thin porridge. The little patient was rapidly becoming anæmic and very feeble.

I now concluded that there was rupture of a blood-vessel somewhere along the intestinal tract, and knew that in order to be able to arrest it, the point at which the opening existed must be found. Before deliberating on that question, however, I administered brandy freely in small quantities, wrapped the baby up in a warm blanket, and gave an injection of a strong solution of alum; but it no sooner entered the bowel than it was rejected, closely followed, for the first time, by as much as three ounces of pure blood. I substituted a solution of the pernitrate of iron for the alum, but with no better effect; and while making every effort to preserve the life, the child succumbed from the large and speedy flow of blood.

Being somewhat chagrined at my helplessness in the case when every one looked to me, as the physician, for aid, and being embarrassed as to the cause, I pressed for a post-mortem, and was gratified by the consent of the parents.

Early in the morning following death, in company with Mr. Thos. F. Breene, a medical student, I made an autopsy.

The body revealed nothing unusual till we reached the rectum. Beginning at the anus I traced up the blood-stained mucous lining of the bowel for about three inches, and here the blood-stain abruptly ceased. Carefully scraping the glazed covering from the interior of the bowel, in search of an orifice that might account for the flooding, I was shortly rewarded for my trouble by finding an erosion and opening in one of the larger intestinal veins. From this a small quantity of a sanguineous discharge escaped on the least pressure from above. The opening was of sufficient size to readily admit the passage of a bristle.

To determine whether it would be possible during life to remedy this condition, I returned the bowel, and found that had I correctly understood the seat of hemorrhage I might easily have checked it by passing the little finger up the rectum and pressing on its tip, or by packing with cotton batting and some styptic.

The interesting features in the case, which I believe

will justify me in offering it for publication, are, first, the absence of any author's description of this accident, either medical or surgical—a fact proving its extreme rarity; and secondly, the fact, as the autopsy revealed, of the nearness to the anus of the opening in the gut.

It is to be hoped that should a case of the kind described above ever come under the care of a practitioner who has seen or read these desultory remarks, it may be treated with intelligence and positive success.

Yours respectfully,

T. H. MANLEY, M.D.

LAWRENCE, MASS.

POISONING BY A BEE-STING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—On the 27th of August I was called to see Mrs. G—, æt. 70, a well-preserved old lady who generally enjoys robust health. I found her vomiting violently, and was informed that active emesis had been going on for some three hours with hardly an intermission; and that a short time before she grew sick she had been stung twice on the wrists by “an animated torrid zone,” as Ralph Waldo Emerson terms an humble-bee. Pulse and temperature normal; skin bathed in perspiration.

I ordered a large mustard draft applied to the epigastrium; gave her a powder of bismuth and ox. cerium, and cracked ice *ad libitum*. Not having my hypodermic syringe with me, I went to my office for it; was detained half an hour. Upon my return, I found my patient had rejected everything taken, and was almost in a collapsed state, with feeble circulation, irregular action of the heart, and almost complete absence of pulse at the wrist. Temperature, 96° F. I gave her brandy and spt. ammon. aro. *per os*, and morphia sulph. hypodermically, had her cold extremities rubbed, hot applications to her limbs, and extra blankets put on her. The ammonia and brandy was promptly rejected, but, much to my relief, the morphia and the external agents used soon began to have a beneficial effect, and in about an hour reaction came on, and she was out of immediate danger. I gave her nothing but small bits of ice, which she was only able to retain by a great effort. I repeated the hypodermic injection at bedtime. She rested well during the night, and the next morning was able to take teaspoonful doses of ice-cold milk and lime-water; and though so much prostrated as to be obliged to keep her bed several days, has made a good recovery.

In that invaluable repository of medical knowledge, “Ziemssen's Cyclopædia,” Vol. III, Bollinger gives an admirable description of infection by bee-stings, which I quote *in extenso*: “Wounds of this character have in rare instances been known to be followed by symptoms of blood-poisoning, and now and then by a fatal result. Such dangerous stings are mostly inflicted in certain special parts of the body, as, for instance, near the eyes, ears, and lips, and occur in feeble women or in old persons.

“The constitutional symptoms are usually nausea, faintness, great weakness, vomiting, præcordial distress, difficulty in breathing, also coldness of the extremities, and frequently petechiæ on the body, or the general eruption of a pale-reddish exanthema, either resembling that of measles, or in the form of wheals, with intense itching. Less frequently an excessive thirst is experienced, and a hoarseness increasing to an absolute aphonia.

“In place of the slight redness and swelling in the

vicinity of the sting, there appear at times an extensive tumefaction and lividity, which may involve a large portion of the affected limb, or even the entire body. These phenomena last for several hours, disappearing in favorable cases speedily, or within a few days. In many instances death ensues within a quarter of an hour, or even a few moments.

“It is probable that in such cases the virus has been ejected from the sting directly into a blood-vessel.”

None of the above phenomena were present in Mrs. G.'s case, except the constitutional symptoms, which were exactly as Bollinger describes them, and considerable tumefaction of the wrists in the region of the stings.

Respectfully yours,

WM. E. BRANDT, M.D.,

Late A. A. Surg., U.S.A.

HANOVER, INDIANA.

RETAINED PLACENTA OF NEARLY FIVE MONTHS' STANDING.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—I called to see Mrs. V. D—, June 12th, at which time she gave me the following history:

The last regular menstruation which she experienced terminated November 8, 1878. She was married November 12th of the same month; she did not menstruate again—or see anything—as she expressed it, until early in February, 1879, at which time she was taken suddenly with pain and excessive flowing.

The family physician was called, and he, supposing that the patient was threatened with miscarriage, prescribed for her and advised rest in the recumbent posture. No vaginal examination was made at that time. The patient was soon around again, and for two months following she was about the same as usual at her “periods.”

For the next two or three months, however, she has suffered from metrorrhagia, which had continued up to the time I saw her. She was very much reduced in strength; never had fever or chills, some pain in the back, appetite very good, but feeling weak. On making a vaginal examination the uterus was found to be somewhat enlarged and retroverted, no tenderness on pressure over the fundus. I corrected the displacement, and knowing that the malposition of the organ might give rise to congestion, enlargement, and hemorrhage, I was at first inclined to consider that as the cause, yet the previous history led me to suspect some foreign body within the cavity of the uterus. I therefore concluded to use ergot, and if any subsequent hemorrhage ensued, to dilate the cervical canal and make an examination into the interior of the womb. Prescribed a half drachm of the fluid extract of ergot every four hours.

No bleeding occurred for a week, and the patient was feeling stronger, and without my knowledge or consent (which I should not have given), she took a long ride to a neighboring town, and while on the way back she felt some pain in the pelvic region, and found that she was flowing again. The pain was quite severe, and the hemorrhage continued until about 7 o'clock P.M., when an oblong body, about the size of a two months' fetus, was expelled from the uterus. I was hastily summoned with the not very comforting assurance that Mrs. V. D— was dying, which I found to be an exaggeration on arriving at the house, as my patient was very cheerful, not having in any respect the appearance of being “in

articulo mortis." On examination, I found the os dilated, but nothing within the fundus. The following day the uterus was firmly contracted and the os closed. There was no subsequent hemorrhage and no offensive discharge more than at menstruation. She gradually improved, and is now quite in her usual health. About the 1st of July she again menstruated, it being the time for the "monthly periods" as compared with the previous dates. On making a careful examination at my office a few hours after, of the substance discharged, I found it to be a placenta with its edges agglutinated, having assumed the shape of the cavity of the uterus, showing that it had remained within that organ some time after separation had taken place from its surface. The fact that the after-birth remained in the uterus for nearly five months after the loss of the fœtus, without decomposition, and with no serious results other than the effect which the metrorrhagia would naturally have upon the system, leads me to report the case; although the prompt action and undoubted efficacy of the ergot in producing uterine contraction, and consequent expulsion of its contents, are also of considerable interest.

Very respectfully,

G. H. LATHROP, M.D.

• WURTEBORO', N. Y.

New Instruments.

A NEW APPARATUS FOR FRACTURED CLAVICLE.

By THOMAS E. SATTERTHWAITE, M.D.,

NEW YORK.

THE method here described has been in use for nearly a year, and has given entire satisfaction in the two instances where it was applied. The three prominent indications in this accident are, obviously, to correct the downward, forward, and inward displacement of the outer fragment of the clavicle. Accordingly, the shoulder is to be carried upward, backward, and outward. The first and second of these manœuvres is successfully accomplished by the adhesive plaster method, but the third is usually neglected, because it is generally impracticable, unless the ordinary axillary pad is used, an appliance that cannot be borne without great pain and annoyance. The merits of this present plan are chiefly due to the *elastic force* which is brought into play. As is well known, this accomplishes more in overcoming muscular resistance, and with less convenience than any other force similar in amount.

The essentials of the appliance are, first, a soft rubber bag, and second, moderately stout elastic bandages in place of the ordinary adhesive ones that are commonly used, as in the method given to the public by Dr. L. A. Sayre (*American Practitioner*, July, 1871).

The bag is horse-shoe in shape, and forms a fulcrum when placed in the axilla, as in the ordinary V-shaped pad of Fox's apparatus. The humerus is now the long arm of the lever, and when brought close to the side of the body, withdraws the outer fragment of the clavicle from its false position and restores the bone to its former length. The elastic bandages which are next applied maintain the position when once secured, and keep the fractured ends in more accurate apposition. The bag (Fig. 1, a) should be moderately filled with water (about three-quarters full); it

is then pressed snugly into the axilla and held there by a narrow rubber band, which passes around the neck. (Figs. 1 and 2.)

Water is better than air because it is less compressible and more apt to remain in the proper position. Water also adapts itself admirably to the inequalities of the surface, and makes continuous pressure over a broad area, so that it is hardly likely to cause ulceration, even when very firmly compressed. The required quantity of water may easily be injected through the tube (Fig. 1, b), which can be tied in a knot so that not a drop will escape. The elastic band about the neck keeps the pad in place, whatever position the head or body may assume. Sometimes rubber bands from the side of the bag may be passed around the chest as an additional means of keeping it in place.

The other parts of the apparatus are simply two strips of gum bandage (Martin's), reinforced at intervals by transverse strips of cotton cloth (Fig. 1, c), through which round holes are pierced for the collar button (Fig. 1, e), which is used to hold the bands in position. They are adjusted as follows:

A loop of the bandage is first passed round the lower part of the arm (Fig. 3, a) and securely fastened behind with two collar buttons; it is then passed around the waist, its course being spirally



FIG. 1.

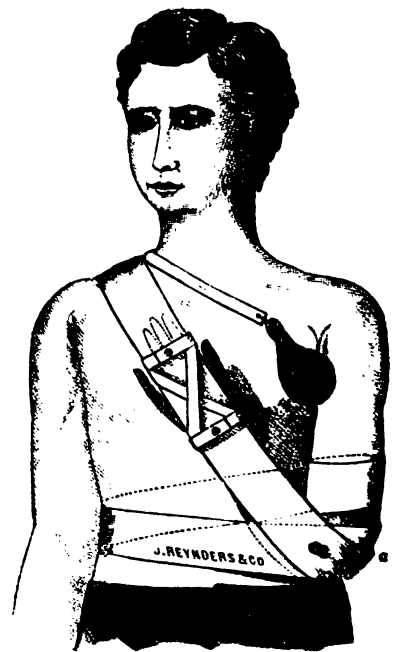


FIG. 2.

downward (see Figs. 2 and 3); returning, the point of the elbow is caught in the soft rubber which forms a partial sling for it (Fig. 3, b); then it is carried over

the shoulder of the opposite side; thence returning (Fig. 2), and passing again over the point of the elbow (Fig. 2, a) it completes the sling. Two collar-buttons finally secure it on the posterior surface of the arm (Fig. 3, a). The hand of the affected side is attached to the band in a way that is comparatively easy and comfortable, by the narrower elastic strip (Fig. 1, c), with figure-of-eight turns (Fig. 2). In the

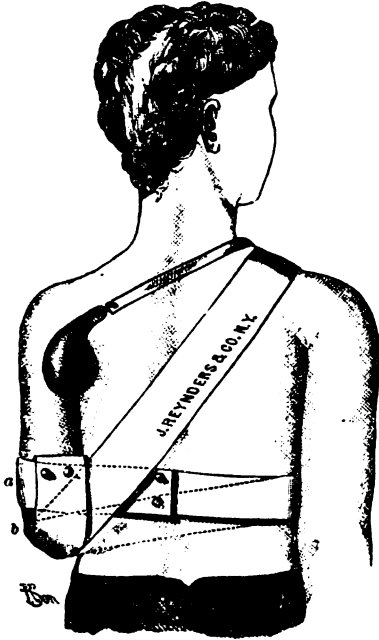


FIG. 3.

two instances where this plan was tried, the apparatus was worn with very slight inconvenience, much less than in any previous cases the writer has seen. The resulting deformity was very slight, and consolidation was accomplished in about four weeks. No excoriation takes place if the bandages are properly applied. The apparatus is *clean* and *light*; once in proper position it should not need any readjustment.

50 E. 51st St.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 13th to 20th, 1879.

ADAIR, GEO. W., Lieut. and Asst. Surgeon. Assigned to duty as Post Surgeon, Fort Mackinac, Michigan. S. O. 161, Dept. East, Sept. 13, 1879.

MIDDLETON, P., Capt. and Asst. Surgeon. Relieved from duty in the Department of the East, to take effect Oct. 1, 1879, and to report to the Commanding General Department of Texas for assignment to duty. S. O. 215, C. S., A. G. O., Sept. 17, 1879.

THE AMERICAN ACADEMY OF MEDICINE.—The Third Annual Meeting of this Society was held at the rooms of the New York Academy of Medicine, on the 16th and 17th of Sept., 1879.

The following officers were elected for the ensuing year: *For President*, F. D. Lente, M.D., of New York. *For Secretary*, R. J. Dunglison, M.D., of Philadelphia. The next meeting will be held in the city of Providence, beginning on the third Tuesday in September, 1880.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 20, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 13, 1879.	0	17	28	1	19	15	0	0
Sept. 20, 1879.	1	8	41	1	88	18	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from September 16th to September 23d inclusive was 85, and the number of deaths that occurred was 38. The total number of new cases for this year to September 24th is 1,267, and the total number of deaths 409.

September 20th.—The indications seem to be that the pestilence is losing its power, yet the health authorities have officially advised that refugees continue to remain away from the city.

It is seventy-two days since the first case was developed this year, and the fact that the disease still continues in existence disposes of the theory that yellow fever will, without the influence of frost or other destroying agency, expend its force within sixty days.

DR. CHARLES ABBOTT, of Winterport, Waldo Co., Maine, died August 19th, at the age of 55 years. He graduated at the Medical Department of the University of New York in 1849, and settled in his native town. He served as surgeon of the Twentieth-sixth Regiment of Maine Volunteers, and was a prominent physician and surgeon in Eastern Maine. His father, Dr. Edmund Abbott, settled in the same town in 1804 and practised there fifty years. The son of Dr. C. Abbott, Edmund Abbott, M.D., was a graduate of New York University, class of 1879, and takes his father's place.

A NEW QUARANTINE STATION ON THE DELAWARE RIVER.—The following communication was read at the last meeting of the Philadelphia Board of Health on Monday, September 8th, viz.:

NATIONAL BOARD OF HEALTH,
WASHINGTON, D. C., Sept. 6, 1879. }

To the President of the Board of Health, Philadelphia, Pennsylvania:

SIR:—I have the honor to transmit herewith a copy of Bulletin No. 10, containing a copy of the rules and regulations drawn up by this Board, and approved by the President, August 23d, relative to the establishment at the mouth of the Delaware River, in the vicinity of the Breakwater, a quarantine station of observation, for the purpose of inspecting vessels entering the Delaware River. I have also the honor to inform you, that the President has directed the detail of Medical Inspector J. C. Spear, U. S. Navy, to enforce these regulations, and that he will be stationed at the Breakwater for that purpose. Upon reporting to this office for orders, he will be instructed to consult with you prior to taking station at the Breakwater. Yours, etc., J. S. BILLINGS,
V. P. National Board of Health.

The discussion which followed the receipt of this communication was lengthy. The Board were unanimous in believing that if the rules thus established were carried out the trade of the port of Philadelphia would be ruined by the unnecessary detention to vessels and passengers coming from abroad, as all vessels would be detained at the Breakwater until it

suit the national officers to make the inspection. At the close of the meeting a resolution was adopted requesting the National Board of Health to suspend action in the matter until notified of the action of the Board of Health of Philadelphia.

The Philadelphia *Public Ledger* of Sept. 9th, in an editorial headed "Too Much Quarantine," deplors the action of the National Board of Health as an "error in its beginning and conclusion," and points out that the choice of the Breakwater as a site for the new quarantine is most unfortunate, it being a most impracticable place for the medical inspection of incoming vessels, the quarantine station at the Lazaretto, already existing, enabling the sanitary inspection of vessels to be made with the least possible delay to commerce.

The boarding station at the old quarantine is within easy reach of the channel, so that vessels from infected parts can be boarded without the need of their stopping at all, whereas, at the Delaware Breakwater all vessels would have to be brought to anchor, and vessels arriving at dusk would have to lay over until the next day.

SOCIAL SCIENCE ASSOCIATION.—This association held its annual meeting at Saratoga on Sept. 11th, 12th, and 13th. A number of papers of interest to the medical profession were read at its sessions, sanitary matters especially being the subject of discussion.

Mr. Angell, of Boston, read a paper upon "Adulterations in Food and Drink." A similar contribution was made by him a year ago, and was noticed by this journal. This year, in the discussion that followed his paper, a number of his statements in regard to adulterations were contradicted.

Pres. F. P. Barnard read a long and very exhaustive article on "International Coinage, Weights, and Measures." He showed the lack of uniformity in our present system, and urged with much enthusiasm the adoption of the metric.

Col. Geo. E. Waring, Jr., of Newport, read a paper on the "Sewerage of Villages and Cities."

"The Sanitary Condition of Tenement-Houses" was the theme of Charles P. Russell, M.D., of this city; and this was followed by a paper on "The Tenement-House, and the Latest Improvements Therein," by Charles F. Wingate. A discussion upon the value of uniting sanitary and poor-law Boards followed, in which the success of such a system as at present existing in England and Massachusetts was shown.

Dr. White read a paper on "Yellow Fever," and Charles L. Brace, of New York, a long dissertation on "The Care of Poor Children."

QUACKERY IN NEW YORK.—At a meeting of the city aldermen, September 15th, the following resolution was introduced and referred to the Committee on Laws:

Resolved, That the Counsel to the Corporation be requested to report to the Board if there is any law of this State prohibiting persons not graduates of medical colleges from practising as surgeons and physicians in this city; if not, if it is legally in the power of the Common Council of this city to pass an ordinance to prohibit such persons from practising by imposing a penalty for violation of its provisions; and if such power exists in the local authorities, that he transmit to this Board the draft of such an ordinance, fixing the penalty at \$100 for every offence.

VISITORS FROM ABROAD.—Dr. Henry W. Acland, who is visiting this country, and who took a prominent part at the recent meeting of the American So-

cial Science Association, spent several days in New York last week. He attended a meeting of the Board of Health, and afterward went through several of the city institutions. Dr. Acland has long been prominent as a sanitarian, and has written many papers on sanitary subjects.

PRELIMINARY EDUCATION FOR MEDICAL STUDENTS.—This subject was discussed again by Dr. Lewis H. Stiner, at the fourth annual meeting of the American Academy of Medicine, recently held, and the same lamentable facts in regard to medical education were presented. Dr. Stiner asserts that the old-fashioned college curriculum furnishes the best preliminary training.

COLLECTING DOCTORS' BILLS.—The sorrows and the failures attending this interesting part of medical practice attracted the attention of the Northwestern Medical Association at its last meeting. To remedy the evil it proposes that on the face of the bills shall be printed: "Bills rendered monthly, or within thirty days after service." On one end is printed: "Ten per cent. discount will be allowed if payment is made within thirty days. Lawful interest will be charged after thirty days." On the other end is the name of the collector chosen by the Association.

THE NEW YORK ACADEMY OF MEDICINE.—The new library hall of the New York Academy of Medicine will be dedicated on the evening of October 2d, to which the profession of this city and of Brooklyn are invited. Short addresses may be expected from Dr. Acland, Reg. Prof. of Oxford University, Mr. Callender of London, Prof. Gross of Philadelphia, Dr. J. S. Billings of Washington, and other distinguished members of the profession.

THE AMERICAN GYNECOLOGICAL SOCIETY.—At the Fourth Annual Meeting of this Society, held in the city of Baltimore, September 17, 18, and 19, 1879, the following officers were elected for the ensuing year: *For President*—Dr. J. Marion Sims, of New York. *For Vice-Presidents*—Dr. Robert Battey, of Rome, Ga., and Dr. W. T. Howard, of Baltimore, Md. *For Members of the Council*—Dr. W. Goodell, of Philadelphia; Dr. E. W. Jenks, of Chicago; Dr. A. D. Sinclair, of Boston; and Dr. A. J. C. Skene, of Brooklyn. *For Secretary*—Dr. James R. Chadwick, of Boston. *For Treasurer*—Dr. Paul F. Mundé, of New York. The next annual meeting will be held in the city of Cincinnati, beginning on the first Wednesday in September, 1880.

QUININE, SOLUTION OF IN STOMACH.—A weak tartaric acid lemonade taken after quinine is said to hasten solution and absorption, and relieves gastric irritability.

BOOKS RECEIVED.

EYE-SIGHT, AND HOW TO CARE FOR IT. By GEORGE C. HARLAN, M.D. Health Primer. Philadelphia: Lindsay & Blakiston. 1879.

FIRST STEP IN CHEMICAL PRINCIPLES. By HENRY LEFFERMANN, M.D. Philadelphia: Edward Stein & Co. 1879.

TRANSACTIONS OF THE COLLEGE OF PHYSICIANS AND SURGEONS. Third Series, Volume IV. Philadelphia: Lindsay & Blakiston. 1879.

ŒUVRES CHIRURGICALES ET MÉDICALES du Docteur G. GUILLON (père). Paris. 1879.

TRANSACTIONS OF THE MEDICAL ASSOCIATION OF GEORGIA FOR 1879. Thirtieth Annual Session.

Original Lectures.

CLINICAL LECTURE ON DISEASES OF WOMEN.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

By T. GAILLARD THOMAS, M.D.

CASE I.—*Laceration of the Cervix, with Subinvolution and Retroflexion.*

GENTLEMEN:—Our first patient to-day is Mrs. Ellen C—, a native of Ireland, and thirty-seven years of age. She has been married thirteen years, and has had seven children and two miscarriages. Her last miscarriage occurred two years ago.

"How long have you been sick, Mrs. C—?"

"Two years."

"How old is your youngest child?"

"Three years."

"What have you complained of during the last two years?"

"A constant pain in the back."

"What else?"

"Pain in the left side." (The patient here placed her hand over the region of the left ovary.)

"Have you had pain anywhere else?"

"In the left groin."

"Is there anything else that has troubled you?"

"I lose too much blood at the time of my monthly sickness."

"Do you have the whites?"

"No."

"Is there any other trouble?"

"My appetite is very poor, and I suffer from headache."

"Are you able to attend to your work?"

"I am obliged to work, but cannot do it nearly as well as before."

You observe that in this case, gentlemen, we have all the ordinary symptoms of uterine disease, with the single exception (according to the patient's account) of leucorrhœa. Without her apparently being aware of the fact, however, this symptom is also present in quite a marked manner, as I discovered on making a vaginal examination; so that nothing is lacking to complete the evidence of the existence of such trouble.

Let me now briefly recapitulate the history of the case as it has been given to us. Three years ago this patient was a perfectly healthy woman; but two years since she had a miscarriage, and this was followed by (1) pain in the back, (2) pain in the left iliac fossa, (3) pain in the left groin, (4) menorrhagia, (5) headache and loss of appetite, (6) partial inability to attend to daily work, and finally I add leucorrhœa. I want you to remember in this connection what I told you in my last didactic lecture, that in every case there are a great many links in a chain, as it were, and would urge you as strongly as I can to always try to connect these in a philosophical manner, in order that you may learn to take as broad a view of uterine disease as possible. You must try to look at the symptoms as so many evidences of certain troubles in the system, and endeavor to found on the symptoms a logical opinion as to the general nature of the case in as full and perfect a

manner as you are able. The case now before us will serve as an excellent illustration of my meaning.

In the first place, when I made an examination of the patient, my finger came in contact not with an ordinary cervix, but with one whose torn lips were widely gaping, so that it passed at once up to the os internum. In addition, I found that the exposed surface was covered with a thick, tenacious mucus, because the Nabothian glands, unprotected, as they should be, by the cervical walls, were continually pouring forth a free discharge. Now some men, who take a very narrow view of uterine disease, are in the habit of seizing upon one of the links of which I have been speaking without regard to any of the others, and basing their diagnosis upon this alone. Such a diagnostician would be content with the examination as thus made, without troubling himself to go any further, and would declare the case to be simply one of laceration of the cervix.

But this was not all that I discovered by my examination. On practising conjoined manipulation, I found that the body of the uterus was not in its normal position, and ascertained that the organ was in a state of marked retroflexion. A second diagnostician of the superficial character to which I have alluded, might therefore pitch upon this displacement, and call the case merely one of retroflexion.

But still further, in making this conjoined manipulation, I discovered that the uterus was greatly enlarged, and exquisitely tender to the touch. Here, then, would be a grand opening for a third diagnostician, who would declare the case to be one of chronic metritis, and say that all the patient's suffering was due to the inflammatory trouble present.

But this is not all yet. As I continued my examination, I received the impression that the perineum had been completely ruptured through; but I afterwards ascertained that instead of this, it was still intact, although it was perfectly worthless. This was because it was altogether so weak and flaccid as to be quite incapable of supporting the anterior wall of the vagina, as it ought to do. It then occurred to me that something had gone wrong with the perineum as well as the cervix in labor.

Is there, then, chronic metritis here? Not at all. Either after the last miscarriage, or labor, (and more probably the latter,) the uterus did not return to its normal size, but was left in a condition of subinvolution, as it is called. If it occurred after the labor at full term, it was, no doubt, the cause of the more recent miscarriage. The state of the organ is one of hyperplasia, a hypertrophy of tissue requiring a larger supply of blood, and involving an alteration of the uterine nerves, which produces the tenderness of the organ that has been noted. In the same way the perineum did not undergo proper involution after the labor, but was left in the weak and flabby condition in which we now find it.

There are two very important points in the case which it is necessary that we should determine, and these are, *first*, What is really the matter with the patient? and, *second*, What can be done to cure her? One is just as important as the other; and if the true nature of the case is not understood, there is no hope of obtaining a cure, unless, indeed, (which is altogether improbable,) you should, by some lucky accident, hit upon the right method of treatment. I propose now to show you briefly what I believe to be the connection of the various links of symptoms to which your attention has been called in this case.

At the time of the patient's last labor at full term, the child's head ripped the cervix on each side, and,

the delivery over, the woman did not get well as she ought to have done, but had what the monthly nurses call "a bad getting up." This was because the lochial discharge (composed, as it was, of disintegrating uterine elements floating in a sanious fluid) acted as an irritant as it poured over and bathed the surfaces left raw by the process of parturition. How irritating this fluid is, is shown by the fact that nurses not infrequently suffer from erysipelas or angio-leucitis simply from having it temporarily in contact with their hands when there is any little abrasion of the skin present. On account of the irritation thus produced, involution was, no doubt, interfered with, and at the end of two months, when it should have already returned to its original size, the uterus was still very large and flabby. Neither did the perineum undergo involution as it should have done.

On my inquiring particularly of the patient if she did not have a bad "getting up" after the birth of her last child, she replied that she did not notice anything out of the way, and got up about the same time as usual in her other labors. But this statement does not in the least invalidate what I have just said. There are many well-authenticated peripartetic cases of typhoid fever on record, and sometimes actual perforation of the intestines has taken place without the patient's knowing that he was affected with the disease. So here there has, no doubt, been septicæmia present, but it has probably been of such a low grade that the patient was not aware that anything was wrong with her. This, then, is the first link in our chain.

Now when the patient got up after the labor, and went about her usual avocations, instead of having in her body a uterus of small size, and composed of new tissue, (as is the case after normal parturition) she had there a large and flabby one made up of old material. The consequence was, that on account of its great weight and atony it gradually fell back in the pelvis, and then the accumulation of fecal masses in the intestines pressed it still further and further down. You are aware that aneurisms are sometimes treated by flexing the limb on which they occur, in order to diminish the supply of blood to the part. So this flexion of the uterus no doubt interfered decidedly with the vascular condition of the organ, and it acted very much as ligating it with a loose string might; that is, it permitted a full supply of blood to reach the uterus by means of the arteries, but cut off, to a great extent, the return of the blood through the veins. The condition of the uterus thus occasioned is what has improperly been called metritis.

In this manner the organ is kept in a turgid condition all the time, and whenever the menstrual period comes around, the flow of blood is abnormally great. In this case the patient tells me she menstruates every two weeks, and at each period loses a large quantity of blood. This is because the uterus is so engorged that the venules and arterioles rupture very easily. Another symptom also accounted for by the constant hyperæmia of the uterus is the leucorrhœa, although this is in part due also to the abnormal condition of the cervix.

What, then, is really the matter with the patient? If you want to be a pathologist who, to use a not very elegant expression, "cannot see any further than his nose," you can take any one of the above conditions and make a diagnosis of it, such as "chronic metritis," laceration of the cervix, retroflexion, "endometritis," uterine catarrh, etc. Different observers might fix upon any one of these, and each would have a certain amount of truth in his opinion of the case; but all

such would be but poor gynecologists and superficial pathologists. When in any case I am called upon for a written opinion, I am usually very careful not to base my diagnosis upon one point alone.

Having made this matter sufficiently plain to you, as I trust, I pass on now to the subject of treatment; and I do not hesitate to say most emphatically that the patient can be perfectly cured of all her troubles, provided she is able to avail herself of all the remedial measures which may be suggested for her benefit. In the first place, she should be put to bed and treated with gentle cathartics, in order to relieve the bowels. She should take an almost exclusively fluid diet, and her vagina should be thoroughly syringed with hot water perhaps as often as three times a day, and, at all events, every night and morning. This is on the same principle that you would keep an inflamed eye bathed with warm water, or would apply warm poultices to a paronychia. After a week of this treatment, the parts would be in a decidedly less irritable condition than at present, and the patient being placed on her side, with her arm thrown behind her, the medical attendant should place two fingers against the fundus and gradually press up the displaced organ into its proper position. This having been accomplished, an appropriate pessary should be introduced for the purpose of keeping it in place, and, if necessary, the patient might then be allowed to get up and attend to her usual duties. It is decidedly the best method, however, to keep her confined to bed, and especially if the physician is not a very experienced gynecologist; because there is always a little risk in putting in a pessary in any case where the uterus has long remained out of its proper position. But the chances are that the instrument will be perfectly tolerated, and when the woman gets up to walk about, it will be impossible for the organ to fall back into its former malposition. You have now taken away the string that has so long constricted it, and, as a consequence, both the venous and arterial blood circulate through its vessels. At once the "endometritis" begins to get better, and in forty-eight hours after the pessary has been introduced, the patient will probably tell you that she feels more comfortable than she has for the last two or three years.

In two weeks more, the vagina in the meanwhile having been kept well syringed with hot water, the operation for laceration of the cervix, as described and carried out at our last clinic, should be performed; the sutures being allowed to remain in position for nine days. A focus of irritation will have been thus removed, and the leucorrhœa will afterwards be found to have almost, if not entirely, disappeared; the lining membrane of the cervix being no longer everted, and so exposed to the irritation of the air, coitus, etc.

Almost all the symptoms, therefore, will presently disappear, viz.: the backache, the leucorrhœa, and the pain in the left iliac fossa and groin, due to the tension on the round and broad ligaments. Only one will remain, the menorrhagia and too frequent menstruation. But it is the flexure of the uterus which has kept up the engorged condition from which this has resulted, and as time goes on this symptom will also be happily removed. Now you have really done very little, and yet the patient is getting well rapidly. By the end of three months she will probably think it quite unnecessary to continue treatment any longer, and she will have been cured for the reason that you have taken a rational and philosophical view of the case. This is no fancy sketch, I assure you, and I only hope that the points to which I have called your attention have been

impressed upon your minds with sufficient force and clearness, so that you will not fail to remember them when you come to meet such cases in your practice.

There is, however, something very discouraging in the practice of a clinic like this, because in reality almost nothing in the way of treatment can be properly carried out. It is ordinarily quite impossible for patients of the character we have here to remain in bed, and if we put in a pessary, the chances are that the woman will be standing on her feet for eighteen out of twenty-four hours afterward, and will come back the next week with the report that it has done her a great deal more harm than good. In the great majority of instances the only hope for a permanent cure is for the patient to go into a hospital; but, alas, this too is generally impracticable, for it is impossible for her to give up even for a short time the care of her house and family.

CASE II.—Anteversion, Fungoid Degeneration of Uterine Mucous Membrane, and Sterility.

Mrs. Alice C—, aged twenty-two years; has been married five years, and has never been pregnant.

"How long have you been sick?"

"I cannot fix on any definite time."

"Has it been a source of trouble that you have not borne any children?"

"Yes." It is principally to find out the cause of her sterility, if possible, that she has come here to-day.

"Do you suffer from any pain?"

"Only a little in the back."

"Are you regular in your monthly periods?"

"I lose too much blood then."

"How long do you stay in bed at such times?"

"I do not go to bed at all."

"How long does your sickness last?"

"About a week."

"Do you have the whites?"

"Not now; but I used to have them quite badly."

The chief thing in this case would seem, then, to be the sterility.

When I came to make a vaginal examination here, I found the cervix away back in the hollow of the sacrum, and the body of the uterus, consequently, lying forward. On account of the history of menorrhagia, I was led to apply the curette to the uterine mucous membrane, and I quickly withdrew a perfect specimen of the fungoid growths to which I have already several times called your attention. Their presence fully accounts for the too great loss of blood at the monthly periods, and this condition of the endometrium and the anteversion were all the pathological points that I noticed.

Now how can we account for the symptoms? *First*, the backache is to be attributed in part to the congestion incidental to the malposition of the uterus, and in part to the dragging on the ligaments, as well as the direct pressure of the uterus. *Second*, as to the sterility. In the anteverted position of the uterus, the posterior wall of the vagina acts as a valve which covers the os externum, and so forms a mechanical bar to impregnation. Then uterine catarrh, which results from congestion, such as is caused here by the displacement, is a frequent cause of sterility. As to the menorrhagia, it has already been seen to be due to the fungoid proliferation of the lining membrane of the uterus. Such growths not infrequently exist in women who have never borne children, and I have met with them in girls of only sixteen. They may occur, indeed, in any uterus that has been kept congested for some time.

The question now arises, can we cure this patient?

I think we can; but it will certainly take a considerable time to do it in. Chronic uterine catarrh, like that of other mucous tracts, is apt to be very obstinate. The first thing to be done is to put the uterus in proper position, for there is no other method of relieving the existing congestion. It should then be kept in place by means of an anteversion pessary, and vaginal injections should be constantly employed to keep the parts free from irritation. After the next menstrual period the endometrium should be carefully and thoroughly scraped with the curette, and all the fungoid growths removed. By these measures I should hope to remove both the menorrhagia and the leucorrhœa. There is one thing that I am a little doubtful about, and that is the point concerning which the patient is most anxious, viz., the sterility. This will undoubtedly be the last symptom to disappear, and we must not be too sanguine in reference to it.

CASE III.—Carcinoma Uteri.

Mrs. Ernestine H—, a native of Germany, and thirty-four years of age; she has been married eleven years and has had seven children, but no miscarriages. As the patient is entirely unable to speak English, I am obliged to avail myself of the services of Dr. Körner, who has kindly consented to act as interpreter. From him I learn that she has been complaining ever since the birth of her last child, which occurred two and a half years ago. The first symptom was a pain in the back, which afterward extended down the sides of the limbs. The most serious symptom, however, has been profuse hemorrhage, which made its appearance not long after the birth of the child referred to. Immediately after the woman got up there set in a very abundant leucorrhœa, and in one month more it was replaced by hemorrhage. This has continued to a greater or less extent ever since. The symptoms then are few in number, consisting of constant metrorrhagia for two and a half years, following a labor, pain in the back, etc., and marked depreciation of the general health, but they are very significant indeed.

I will now show you on the blackboard the result of the vaginal examination which I made in the case. The patient lying upon the back, I found the uterus in its normal position, but instead of the normal cervix there was a gaping cavity, such as I now roughly represent to you, with a sharp edge. As I pressed on its surface it seemed crisp to the touch, and to have numerous indurated projections, which felt very much like shot half embedded in the tissue, while the mere passage of the finger over it excited the most profuse hemorrhage. While making the examination I noticed also that the odor from the vagina was very offensive. It was not simply the smell of decaying flesh, but one that is indescribable and much more disagreeable than that.

This was all that I discovered; but, unfortunately, it was a great deal too much, for I recognized in an instant that we had here to do with an entirely hopeless condition—true carcinoma uteri. The patient's doom is irrevocably sealed. Under the most favorable circumstances I should think she might perhaps live a year longer, but hardly more than that. As she is entirely unable to understand a word of English, of course I am expressing myself much more freely in her presence than I would otherwise have done.

A year ago, a physician recognizing in the patient the condition known as cauliflower excrescence (which, by the way, I would have you understand is just as fatal as any other form of cancer), very properly amputated the cervix by means of the galvano-caustic

wire. In June last the operation was repeated, and now, at the end of a year from the first one and four months from the second, we find the cicatrix in the marked cancerous condition which I have shown you on the blackboard. Then, you perhaps will say, the medical attendant made a mistake in performing the operation at all. By no means; because, although it has not cured the disease, I have no doubt that it has materially prolonged the woman's life. There is a patient of mine who had the same trouble, and upon whom I performed a similar operation nine years ago. Being a widow at the time, she married again very happily, and she is to-day apparently in excellent health; but still I firmly believe that she will eventually die of cancer. This is a very exceptional case, but I have known a number of others to live as long as three years. Sooner or later, however, the disease, in my experience, always comes back again.

There is a physician's wife in this city who was in a most dreadful condition a year ago, upon whom I performed amputation of the cervix, and who has since then been perfectly well. Up to the present time there has been no new development of the disease whatever, but I am almost certain that during the next twelve months it will return. Yet who shall say that we have not gained a great deal by this happy respite. I am therefore strongly in favor of the operation in properly selected cases. In the present instance, however, no operation whatever would now be of the slightest use. What then; shall we let the woman die without any effort to prolong life or render her comfortable? By no means. There are three things which we can do, which will be of the very greatest service to her, viz.:

1. Control the hemorrhage.
2. Relieve the pain.
3. Disinfect the offensive discharge.

The plan that should be pursued here is as follows: first, the vagina and uterine cavity should be rapidly cleansed with absorbing-cotton, and then chemically pure nitric acid should be thoroughly applied to all the diseased surface. This will undoubtedly control the loss of blood for a time, and it may perhaps be unnecessary to repeat the application for as much as three months.

For the relief of the pain the treatment is all summed up in one word, and that is *opium*. This divine drug entirely overshadows all other anodynes, and you are merely trifling with your patient when you substitute for it hyoscyamus, chloral, or any other medicine whatever. If it should disagree with her at first, you can easily educate her to become an *opium-eater*, and nothing short of this should be aimed at by the medical attendant. There is a natural tendency in the human race to take to opium, as there is to alcohol, and in such a case as this you can have the opportunity of ministering to this natural craving with a perfectly clear conscience. You will find, therefore, that the patient who at first perhaps could not take even a small dose of opium without the most unpleasant consequences, will soon be looking forward with absolute pleasure when the drug is to be administered. If it does not suit her stomach, however, give it by the rectum; and should that disagree with her also, you have that most glorious method of relieving human suffering ever invented—the hypodermic syringe—left to fall back upon. It should be your object to control the pain at all hazards; and when in any case I hear the physician say that opium will not do this, I am very certain that the fault is with him and not with the drug, because he has never learned how to use it properly. Opium is just as sure to con-

trol pain as a leaden ball shot from a pistol or rifle is to kill a man if it is put into the right place.

The third indication is to overcome the disagreeable odor of the discharge; and this is to be accomplished by very copious vaginal injections, three times a day, of water containing a sufficient amount of thymol or carbolic acid to act as a disinfectant, and some such simple astringent as alum or sulphate of zinc.

Under this treatment you will be surprised to find the patient improving so rapidly that she will think she is certainly getting well. Many instances are on record in which the physician has also been deceived by the apparent recovery of his patient, and has rashly rushed into print in reference to the case, only to find his hopes suddenly dashed to the ground by its fatal termination.

In such cases it is food that the patient requires, in as large quantities as can possibly be digested, and not medicine; for it is useless to give iron, the hypophosphites, and other remedies which have been lauded as of the highest service. The patient is really starving in the midst of plenty, because her food is not converted into blood. And this is true of both animal and vegetable diet. Of all articles of food that I am acquainted with, milk is by far the best adapted for these cases. Some years ago a certain quack obtained a great reputation in the treatment of cancer of the uterus, simply because he employed an almost exclusively milk diet in his cases. At first the patient should take about six ounces of milk every three hours, and afterward the same quantity every two hours during her waking hours. In some cases, however, it is necessary to begin with only two ounces, or even one ounce. As soon as practicable, a large amount of cream should be added, so that the patient may get about two ounces of cream to every four ounces of milk. It will be better still if she can take three ounces of each every two or three hours; and it is a good plan to keep some of it by her bedside, in order that she may drink of it whenever she happens to wake through the night. By such a course of treatment as this, I have not the slightest doubt that the patient can be very greatly improved; but she will not, alas! be cured. A great deal will be gained, however, if by this means we can remove some of the evils from which she is suffering to-day, thus prolonging her life and ministering very materially to her comfort.

CODEINE IN THE TREATMENT OF DIABETES.—The great value of opium in diabetes has long been recognized, and its use has suggested that of codeine, which must now be placed amongst the drugs that occasionally do much good in that disease. A case treated with it has been reported to *Paris Médical*. The patient, a woman aged twenty-three, was put on a diet of skimmed milk, eggs, beans, and green vegetables. The specific gravity of the urine was 1048, and the daily amount of sugar, 3 ss. Various drugs were given without any permanent amelioration. Finally, codeine was administered in grain-doses twice a day. The patient began at once to improve, gaining flesh and passing less urine. In two weeks the amount of sugar passed was only about two drachms.

SCLERODERMA.—A case of this affection about which there has recently been much discussion, has been published by Dr. Armaingaud, of Bordeaux. It was treated with much success by the continued current after iodide of potash and vapor-baths had entirely failed.

Original Communications.

ON THE VALUE OF THE GALVANIC CURRENT IN EXOPHTHALMIC GOITRE,

AS ILLUSTRATED IN THE TREATMENT OF FOUR CASES.

BY A. D. ROCKWELL, M.D.,

OF NEW YORK,

ELECTRO-THERAPIST TO THE NEW YORK STATE WOMAN'S HOSPITAL, NYC.

THE opportunities for post-mortem examination in cases of Graves's disease have been so few that its pathology is far from being satisfactorily ascertained. It is true, that very positive results have rewarded certain researches into the condition of the sympathetic.

In eight cases structural change was discernible, although in a number this change was so slight as to be hardly recognizable, while in four cases not the slightest lesion could be detected. It seems fair to conclude, therefore (accepting the neurotic theory of the disease, rather than Basedow's hypothesis of a primary chlorotic affection, or the cardiac theory of Stokes), that the symptoms of exophthalmic goitre may proceed from purely functional, as well as from organic diseases of the sympathetic.

In those cases that resist every form of treatment, it is to my mind quite probable that examination of the nerve would reveal greater or less diminution of the nerve elements, together with gray infiltration and increase of the connective tissue, since these were the most important changes observed in the eight cases alluded to above, while results such as I am about to record can only be obtained when the condition is a neuroses pure and simple.

CASE I.—The patient, John L.—, was a pale, slim man, aged 29, and by occupation a compositor. The three cardinal symptoms of the disease, viz.: exophthalmus, swelling of the thyroid gland, and palpitation, were present in a marked degree, and in addition there was a want of harmony between the movements of the upper eyelid and eyeball, a phenomenon first observed by Von Graefe, and by him regarded as pathognomonic.

The history and antecedents of the case are as follows: The mother, now deceased, suffered from epileptic seizures from the earliest remembrance of our patient, while an older sister was the victim of frequent and severe attacks of hysteria. The father had been intemperate, and died of delirium tremens. It would thus seem that we had in this history ground for a belief in the importance of the relation of hereditary influences to these conditions.

The health of the patient up to his twenty-fifth year had been uniformly good, and the only evidence of a neurotic predisposition was an occasional and unexplainable tendency to insomnia for a year or so previous to the first symptoms of his disease. I first saw the man July 6, 1879.

During the summer of 1878 he observed a slight swelling of the thyroid; very soon after, considerable palpitation; and later still, protrusion of the eyeballs. It is to be noted in passing that the order of the onset of the symptoms is unusual, the thyroid enlargement usually being second in order of development instead of first.

On my first examination I found the gland enlarged to about the size of the fist of a child of ten years, the pulse beating in frequency 135 to the minute,

while the protrusion of the globe of the eye was as great as in any case I have seen. By subsequent examination I found that the pulse ranged from 120 to 130. On three different occasions, where the sphygmometer was used, it marked 100°, 101°, and 102°. The appetite of the patient was poor, his secretions disordered, and his general strength impaired. After some preliminary medication of a corrective nature, I gave the ordinary prescription of quinine and iron, and at the same time began the applications of the galvanic current. My method of application was as follows: Placing the cathode over the cilio-spinal centre, and the anode in the auriculo-maxillary fossa, I gradually drew the latter, after a few moments of stable treatment, along the inner border of the sterno-cleido muscle, to its lower end. Removing now the anode to the position occupied by the cathode, and the cathode to the pit of the stomach, I would continue the treatment with a greatly increased strength of current for some moments longer. My ordinary measurement of current strength is by the "shunt" galvanometer of the long coil variety.

During the first portion of the operation described, the current was sufficiently strong to deflect the needle 15°; during the last half of the operation, the deflection was increased to 30°. In other words, as a freshly charged zinc-carbon battery of regulation strength deflects the needle about 1° for every cell, a current strength equivalent to fifteen and thirty fresh cells was used. In point of fact, however, as some deterioration in activity through previous using had occurred, from twenty to forty cells were employed. The results of this treatment were immediate and of the most positive character.

The force and rapidity of the heart-beats were greatly modified; and accompanying, or rather following, by a week or ten days, this subsidence of the violent palpitation, there was a very noticeable decrease of the exophthalmus. A decrease in the size of the thyroid was not observed until some days after, and disappeared with much less rapidity than the other symptoms. In order to hasten the cure, I very carefully performed electrolysis on two occasions, and with evident benefit.

At the date of writing, Aug. 20th, after having received fifteen (15) applications, the patient has, so far as relates to the palpitation and exophthalmus, entirely recovered.

The goitre has decreased in size fully two-thirds, and is quite hard and firm, a change which is to be attributed, in all probability, to a hyperplasia of the glandular tissue taking the place of the dilated vessels.

From this time forward the important point in this somewhat remarkable case will relate to the degree of permanency of the apparent recovery.

I place the following case on record, not only because of the benefit accruing from treatment, but as illustrative also of two rare symptoms in connection with Graves's disease, viz., 1st. Dilatation of the pupils; 2d. Swelling and pulsation in the region of the solar plexus. I am not, indeed, aware that any case of Graves's disease, in which this last symptom may have possibly been observed, has ever before been published.

Accepting the theory of a disturbance of the sympathetic as a cause of this affection, it is not remarkable that its lower, as well as its upper ganglia, should be the seat of disease, sufficient to cause a dilatation of the vessels branching from the celiac axis, analogous to that observed in the arteries of the thyroid gland. In consideration of the rarity of this symptom, therefore, it is interesting to recall the fact, that in the eight cases where changes were observed in the sym-

pathetic and its ganglia, they were confined to the cervical portion, the thoracic and abdominal sympathetic being entirely healthy.

In this case there must necessarily have been marked disturbance of the lower ganglia, but the complete and permanent disappearance of the gastric swelling would seem to preclude the probability of the existence of any lesion.

In the very few cases of exophthalmic goitre in which dilatation of the pupils has been observed, the cause is supposed to be due to a "paralysis of the pupillary branch of the oculo-motor nerve, consequent on neuro-paralytic dilatation of the vessels. The isolated paralysis of this branch (the other fibres of the motor oculi remaining unaffected) is referred by Stellwag to the fact that the branches destined for the pupil do not join the other oculo-motor fibres until after the latter have crossed the crura cerebri, and that they have been proved to originate from several centres of various function."

CASE II.—Mrs. G——, aged about 40, came to me for the relief of an exophthalmic goitre, May 8, 1876. The eyes were much protruded, the thyroid prominent, and the cardiac palpitation violent. The average frequency of the pulse was about 115, but on various occasions I found that it was beating at the rate of 140 to the minute. The patient was annoyed by profuse bilateral perspiration, the pupils were enlarged, and vertigo was a frequent symptom. The appetite was generally good, but she complained of much nausea.

She referred to one other symptom, which, if related to the disease as an effect, as it would seem, was quite new to me. Subsequent to the development of the three cardinal symptoms, which occurred in the following order—palpitation, thyroid enlargement, exophthalmus, a swelling appeared near the pit of the stomach, which in size and vigor of pulsation was more marked than the goitre. I may remark that Dr. S. S. Purple, of New York, had attended the patient in several confinements, and was cognizant of the disease in question.

Dr. Purple informed me that she had suffered much from malarial poison, to which, together with the effects of a labor of some severity shortly previous, might possibly be attributed the symptoms in question. The first signs of the disease were manifest some three years before she came under my observation.

I administered to this patient seventeen applications, ten of which were with the galvanic current, locally applied, while seven were with the faradic current, and were more general in their nature. Amelioration followed very quickly, and at this date the only symptoms of the disease is an almost imperceptible swelling of the thyroid, and, in a modified form, a tendency to occasional cardiac palpitations.

CASE III.—A middle-aged man applied to me on the last day of my service at the Demilt Dispensary, some seven years since, presenting the ordinary symptoms of exophthalmic goitre. I can, unfortunately, find no notes of this case, but, if I remember rightly, the difficulty had not been a long time in developing.

The man had been a hard drinker and was in ill-health. I treated him faithfully for some weeks—long enough to accomplish something, had it been possible—but I cannot remember that he was so fortunate as to experience any relief of a positive character. He ceased his visits abruptly, and never returned.

According to the record, the attempt in this case—st be regarded as a complete failure, and yet,

through the improved methods and appliances of today, it is quite possible that a better result might have followed.

CASE IV.—Mrs. H——, aged 42, came from Newark, N. J., March, 1877, for an opinion, both as to the probability of benefit from an electrolytic operation upon a large goitre, and for her general condition.

The tumor had been coming for many years, and at intervals had been treated by various methods, among others, by injections into the substance of the growth, which resulted in some diminution in size, but at the same time set up an ulcerative process, which was a long time in healing. Her general health was very poor. She was greatly emaciated, suffered almost constantly from nausea, and was unable to retain sufficient food for proper nourishment. The pulse was from 85 to 90, and through mental or physical disturbance would rise 10 to 20 beats. It seemed probable that there was disease of the sympathetic, but there was no protrusion of the eyes.

The goitre was the largest that I had ever treated, approximating in size the two fists of a man.

The patient was first submitted to external galvanization (daily) of the growth and of the sympathetic. In two weeks there was a reduction, by actual measurement, of two and a half inches. At the end of a month no further reduction was observable, but every other symptom had been very decidedly ameliorated. The patient had increased immensely in strength and considerably in weight. The pulse ranged from 70 to 75, and was not at all susceptible to sudden fluctuations. The nausea had disappeared, and the appetite and digestion materially improved. The needles were now resorted to. Introducing three—connected with the negative pole—at equal distances at the base of the tumor, and applying an electrode, covered with chamois skin, directly over the central surface of the goitre, the circuit was closed, and the current from forty Siemens and Halsk's cells was allowed to pass for eight minutes.

At the end of a week, after a single repetition of this process, the original measurement had decreased five inches. During the next two weeks the electrolysis was twice repeated, the last seance being attempted with the ordinary zinc carbon elements, of which twenty were used. The tumor continued to grow smaller until the middle of May, when it was barely perceptible.*

These, with other recorded cases, being sufficient therefore to establish the fact of the value of electricity in exophthalmic goitre, the question naturally arises whether its beneficial effects are susceptible of rational explanation. It is quite evident that in this disease the sympathetic is at fault, but whether the dilatation of vessels, which are such important factors in causing the thyroid enlargement and exophthalmus, is of a passive nature, due to paralysis of the sympathetic, or of an active nature, due, on the contrary, to an irritation of the dilator fibres which run in the sympathetic, is open to question.† Accepting either theory, we find ample ground upon which to base indications for the use of the galvanic current. In case we accept the irritant theory, the very powerful sedative effects which may be obtained from the remedy is a sufficient explanation of the rationale of its use; while the fact that both physio-

* The above case was published in the February number of the *Practica Medical Monthly* (1879), but in order to make the record of my cases complete, I may be excused for giving it again.

† The suggestion that the arterial dilatation is due to irritation of the dilator fibres is offered by Benedict, based upon the experiments of Bernard, Schiff, Ludwig, and Loven.

logical investigation and clinical experience has shown that electricity is the remedy *par excellence* for most forms of paralysis, quite clearly points to its use in cases where there is actual paresis of the nerve itself. In addition to the hyperæmia of vessels as a cause of exophthalmus, there may be also accumulations of fat in the cellular tissues of the orbit, which is probably the main cause in certain cases why the protrusion of the eyes still remain prominent after a decided amelioration of every other symptom.

CHRONIC AFFECTIONS OF THE MUSCLES FOLLOWING TRICHINOSIS.

By EDMUND C. WENDT, M.D.,

NEW YORK.

In the April number of the *American Journal of Medical Sciences*, for the year 1878, I published an account of certain chronic muscular symptoms occurring in a number of persons who had previously undergone trichinous invasion. The views advanced in that article were based on observations made on a group of individuals that constituted one family. I need not enter upon those views here. It is essential, however, to state that I regarded the cases as instances of chronic myositis, with acute exacerbations, due to the presence of innumerable foreign bodies in the voluntary muscles. I present the following case in confirmation of my opinion as stated in the paper mentioned. The history is taken from the records of the German Hospital, at which institution the case was observed, during my service there as resident physician.

Mr. A. B—, aged 28, native of Germany, one year in this country; was admitted April 26, 1878, with the following statement: Has never been seriously ill prior to present sickness; parents living; healthy; his habits temperate. For some days he had been "feverish," in great bodily pain, sleepless, very thirsty, and had complained of loss of appetite. He had perspired profusely; remembered having had diarrhoea about ten days ago. Several days previous to admission he had suddenly been seized with violent pains in the limbs, shoulders, neck, groins, breast, and back. These pains had not left him since then. He could adduce no cause for his severe symptoms.

The physical examination revealed slight bronchial catarrh, inadequate to account for the evident embarrassment of respiration. No lesion of inner organs was discoverable; there was some œdema of the lower extremities, puffiness of the face, especially marked about the eyelids. The examination of his urine proved the absence of renal complications; deglutition impaired; mastication quite painful. The most prominent symptom, and the one which had so largely attracted his painful notice, was the existing soreness and stiffness of the muscles. Almost all the tangible muscles of his body were exquisitely tender to the touch, every movement occasioned pain, and in attempting to go about he moved on tip-toe. The deltoid muscles, the gastrocnemii, the pectorales, the serrati, the muscles of the neck and thigh, were the seat of painful indurations, varying in size from a cherry to that of a closed fist.

The evening temperature rose to 104½° F., with nocturnal remissions to 102° F. Respiration did not exceed 38, and was superficial, owing to the pain attending the effort of deep breathing. There was slight diarrhoea, the tongue moist and thinly coated. Diurnal quantity of urine diminished; color, dark red; no albumen, sugar, or casts.

The consideration of these symptoms left no doubt as to the nature of the malady. The patient was an Israelite, but on being closely questioned he admitted having eaten some raw ham about two weeks ago.

For a time the symptoms continued in their severity, then they gradually abated, and he made a fair recovery. He was discharged for after-treatment at home on the 7th of May; he continued to improve, and was able to resume his former occupation by the end of the month.

He passed from under my notice until fourteen months later; he came to me with a long tale of most annoying complaints, very surprising to him, almost equally so to the family physician, and withal scarcely to be endured. From his rambling remarks I gather the following: He had never entirely regained his former strength and muscular prowess, having been a very powerful man, of excellent physique, before his attack of trichinosis. About six months after leaving the hospital he had quite suddenly become subject to great muscular distress. The attack lasted several days, and in spite of energetic anti-rheumatic treatment, has from time to time repeated itself with unchanged severity. Muscular exertion, which he had previously taken great delight in, had now become a source of extreme suffering, so much so that he had latterly discontinued all active exercise.

But even during inactivity he was liable to be seized with spontaneous pain and soreness, most frequently affecting the flexors and extensors of the limbs. He further stated that these pains would sometimes become so intense that every movement of the body was instinctively shunned, and his condition was bearable only when he remained motionless. At other times his only complaint was a peculiar feeling of soreness in the calves of the legs, the pains occasionally shooting upward and downward. This condition his physician had characterized as one of neuralgia, but his treatment had secured no benefit to the patient. Similarly the arms would become affected, and so on, successively, the different muscles of the body. The shifting nature of these phenomena, and their apparent independence of palpable causes, were excessively annoying to his mind. He said, owing to these seemingly absurd complaints, he had become the laughing-stock of his companions. An old friend told him probably he was not yet over his growing days; he attributed his morbid sensations to *growing pains*; he was forced against his will to acquire habits of indolence.

The treatment advised by his physician had afforded no relief. Independently of all medication the attack would pass off, and a period of absolute freedom from all morbid manifestations would follow. This period of immunity would vary from a few days to several weeks. An examination showed no internal complication. All the functions of his body were normally and regularly performed, and save for the distressing tendency to muscular pains, he enjoyed excellent health.

When told my opinion as to the nature of his singular troubles, and after I had explained to him the causal relation they bore to his attack of trichinosis, he expressed his surprise that the same thought had not before occurred to him; for he said he had already noticed the marked predilection of the pains in favor of those groups of muscles which had been most troublesome at the primary invasion fourteen months ago.

This case appeared to me to merit publicity as corroborating the views previously expressed in conjunction with the cases cited in my former paper.

And I may now be permitted to state a belief already suggested by the study of my previous cases, but which I had hesitated to openly express at the time, *i. e.*, not a few cases accepted and treated as instances of muscular rheumatism, are indeed cases of chronic myositis, with acute exacerbations following trichinosis. It is precisely in this consideration that I find the practical importance of the matter under discussion.

It is well known that slight attacks of trichinosis frequently escape recognition. It is equally well known that rheumatismoid pains of a shifting nature form a prevalent complaint. The occurrence of trichinosis in our country is an established fact, though for various reasons its frequency is generally underestimated. We lack extensive statistical data, such as are furnished by European writers. Strict official surveillance and the microscopic examination of pork by competent authorities have not yet been established in our country. Only very severe or fatal cases are brought to public notice, and these are frequently discovered only by accident. Still, the disease prevails. Official reports on the subject have shown the percentage of infected swine to be especially large in America.

In Europe, people are already warned against pork exported from the United States. The danger in our country is comparatively small, because it is not customary here to eat uncooked ham, sausage, etc. On the other hand, cooking is no absolute safeguard. All this tends to show that the accepted notion, according to trichinosis a place among the rare diseases, cannot but be erroneous.

To return to my point, these considerations will, if I am not mistaken, establish a certain connection between trichinosis on the one hand, and many so-called rheumatismoid affections on the other. As regards the treatment of such cases, I have little to add. Owing to the impossibility of destroying the muscular trichinæ, we are restricted to adopt such symptomatic measures as the exigencies of the individual case seem to suggest. I have found hot baths quite beneficial in allaying the milder attacks. Narcotics must be resorted to when the pains are suddenly developed. Rest and frequent rubbings with anodyne liniments sometimes afford relief. Of course, our only reliable safeguard is an efficient prophylaxis. Some system of rigid microscopic inspection should be adopted in our country, and the sooner we get it the better.

TRAUMATIC DISLOCATION OF THE FIFTH CERVICAL VERTEBRA.

ONE WEEK'S DURATION; IMMOBILITY AND DISTORTION OF HEAD AND NECK; PARALYSIS OF ARMS AND LEGS; INABILITY TO SWALLOW FOOD; REDUCTION BY SUSPENSION BY THE HEAD AND ROTATION OF THE BODY.

By WM. J. MORTON, M.D.,

NEW YORK.

The following case came under my care as clinical assistant at Professor Hammond's clinic for Diseases of the Mind and Nervous System, and offers some points of general interest.

The patient, Tommy Baedor, a bright boy, twelve years old, was referred to the clinic on account of general paralysis of his arms and legs, and apparent contractions of the muscles of the left side of the

neck. He gave the following account of himself: One week ago he was running very fast, chased by another boy, who, as he caught up with him, pushed him violently. He fell and struck the right side of his neck against the horizontal iron rod of a fence or railing. The shock was severe, and he could not speak for several minutes. He was helped up and home. His neck felt very sore and was "twisted" to one side. His aunt applied liniments, without, however, producing any relief. Upon trying to drink he found that he had a "lump" in his throat which hurt him very much when he swallowed, and he was obliged on this account to eat only soup and soft food. Moreover, he could not open his mouth wide. He tried to get a peach stone between his teeth, using it as a wedge to force the jaws apart, but could not get it fairly in. He was obliged to sleep on his right side. The next day he felt very weak, could not swallow without much pain, couldn't walk, nor get his mouth wide open. His aunt states that "his hands felt in a burning fever," while his body felt cool. During the remaining five days he was unable to use his arms and hands; they were "paralyzed, and had no feeling in them,"—so much so, that, he says, he could not use them to pull his trousers on. He also felt very sleepy. He made many ineffectual attempts to get his neck straight. Finally, his aunt, who is a very dull sort of person, thought it time to have his case examined, and accordingly brought him to the clinic.

Present appearance.—As the boy entered, the first thought was of an extreme contraction of the muscles of the left side; the head was pulled strongly over to the left and backward, while the chin pointed out to the right; so marked was this position that the head seemed to lie over upon the left shoulder—the left shoulder at the same time was elevated and held up toward the ear. The rigid appearance of his whole body was peculiar; he seemed to walk as though in fear that his head would topple off; when he turned, the rotation took place at the hips and not at the neck, or he rolled his eyes without moving the head. His arms also swung a little stiff and helplessly, and were flexed at the wrists. The rigidity of the shoulder and neck region was very marked. When asked what he complained of, he stated that he could not use his arms; that he had no feeling in them; that he couldn't walk well, and that it hurt him to swallow even fluids. Examination corroborated his statement in regard to paralysis and cutaneous anæsthesia, as well also as his inability to swallow water without evidences of pain. It caused pain also to produce forcible extension of the flexed wrists. Told to put out his tongue, he could not open his mouth more than half an inch, but the tongue came out straight. It was coated white on the right side, clean and red on the left. There was no discoverable paralysis of the muscles of the face or eyes. As regards the position of his head, the occiput seemed to sink downward and backward, and give to the chin an upward projection; the chin, as mentioned, projected over the median line to the right side. Between the base of the occiput and the seventh vertebra the outline of the spinal column seemed to hollow in, and the spinous processes to be obscure. It was difficult to feel the spine of the fifth, and pressure over it gave pain on both sides, but particularly on the right. The head could be bent over to the left side moderately well, but could not be laid over on to the right shoulder in the slightest degree. In this direction it was perfectly immovable.

There was no evidence of a permanent contracture as in torticollis, nor of paralysis of the muscles of the right side. There was no crepitus at the seat of in-

jury, and the fact that the deformity could not be in the least degree modified by lateral rotation seemed to justify the exclusion of a diagnosis of fracture, at least of an oblique process.

A diagnosis of dislocation of the inferior oblique process of the fifth cervical vertebra was made, and an attempt at reduction determined upon. I may say that Dr. Osborne, who by chance was present, concurred in this diagnosis.

Moderate extension was first tried, but to no purpose. Finally, taking the boy by the head and under each mastoid process, I lifted him gradually entirely clear of the floor and held him suspended, an assistant at the same time supporting my elbows. His body, with the right shoulder as a guide, was then rotated by Dr. Osborne, first very gently backward, *i. e.*, to the right (as the hands of a watch indicate), in order to disengage the oblique process, then more firmly forward, *i. e.*, to the left; the jar of the bone returning to its place was immediately felt both by Dr. Osborne and myself, though much modified, of course, by the weight of the patient's suspended body. The patient was immediately lowered so as to stand on his feet, and to our pleasure the head was quite straight, though still a very little bent over laterally to the left side, a condition due probably to its having been so long already in that position. But it was particularly noticed that the chin pointed straight again. The boy expressed his relief and satisfaction, and rotated his head freely to demonstrate that it was now in its right position. Given a glass of water he drank it off freely—a thing he had not been able to do for a week when sent home. At the end of two hours the head was quite straight. Sensation had not, however, returned to his arms and hands. He had at times a thrilling feeling in them, as if his "crazy bone" was being hit. Patient walked home.

Friday, July 25th.—When patient woke up he found he was unable to move except very gradually. For instance, he woke with his hands crossed and had to get his aunt to separate them. His feet were much swollen, as also his hands and wrists. He could barely hobble along, walking on the outer edge of his feet. His hands felt numb all day; he could not close his fingers nor hold any object in his hands; could move his thumbs best. Both hands were alike. He was so helpless that he had to be put to bed; had no trouble of urination, but was constipated.

July 26th, Saturday.—Felt much better; could use his arms and legs pretty well. The dorsum of the hands was much swollen; pulse, 84. A painful spot, like an enlarged gland, is felt in each groin. Bends head freely forward but not backward. Bends it well to his left side, but not to his right. Right cheek swollen; right side of tongue coated white—left, red; painful enlarged gland under right jaw; pupils normal. Spines of cervical vertebrae in line.

July 27th, Sunday.—Swelling has left his hands; movements improved; still holds his head very slightly crooked. Pulse, 65.

Monday, July 28th.—Head quite straight. Swelling of hands has disappeared, and sensation and motion have thoroughly returned to them. Still places the finger over the fifth cervical vertebra to indicate the region of a remaining sore spot in the neck. Pulse, 84.

Tuesday, July 29th.—Slept without pain in the neck for the first time since injury. Head carried perfectly straight. Patient apparently in all respects completely recovered.

September 29th.—Patient, up to this date, has remained as well as if no accident had ever happened.

CLASS-ROOM LESSONS ON CHANCROID,

GIVEN AT THE COLLEGE OF PHYSICIANS AND SURGEONS IN THE CITY OF NEW YORK.

By FESSENDEN N. OTIS, M.D.,

CLINICAL PROFESSOR OF GENITO-URINARY DISEASES.

[For THE MEDICAL RECORD.]

III.

DIAGNOSIS OF TRUE CHANCROID—CHARACTERISTIC FORMS OF THE CHANCROIDAL LESION—MODIFICATIONS.

GENTLEMEN:—In the previous lesson the diagnosis of simple origin of the apparent chancroid was made in the last case presented.

It is, however, very evident that if no lesion is to be accepted as a chancroid unless proved to have arisen from contact with a lineal* chancroid, the specific nature of chancroid may be accepted as demonstrated. The diagnosis then, in any instance, will not rest upon the character of the lesion, but upon its source. Thus, in the case cited, according to this ruling, we have not a chancroid. A suppurating sore occurs in a lady who never before had an ulcerative lesion of any sort; it makes its appearance on the urethral orifice a few days after contact with her husband, who has a sore of his urethral orifice, which appeared a few days after a contact with another woman, and was followed by a suppurating bubo; it looks exactly like a typical chancroid; it behaves like it in its destructive tendency, in its advance and its retrograde under treatment, and its final cicatrization after about two months' duration, under improved hygienic conditions, and yet it is not accepted as chancroid, and why? First, because it is clearly not the product of a lineal chancroid. This is, of course, sufficient for those who thoroughly accept the specific nature of the disease; but there are others who decide this lineal matter by the inoculability or non-inoculability of its secretion; with them the production of true chancroid, by inoculation of a given secretion, proves that secretion to have come from a chancroid. Assertions to this effect would appear to be the result of experience among the class most prone to suffer from the results of venereal dissipation, where probabilities are all in favor of chancroid having been acquired from contact with chancroid, and among whom the contagious element of the chancroid is kept by various influences up to a high point of activity.

There can be, however, no question that chancroid, proven of direct lineal descent from a typical chancroid, may be met which is inoculated with difficulty, and which is but feebly destructive; that, in point of fact, chancroid descended from typical chancroid is seen of every grade of destructive and contagious power. Experiments have proved that the true chancroid virus gradually loses its power by repeated inoculation, and also that various conditions of health may prevent the success of inoculations with fresh virus, and under circumstances otherwise favorable. "Susceptibility to inoculation is impaired, or even lost, temporarily, during the occurrence of any febrile attack or great depression of the vital powers."[†]

It is also increased by constitutional dyscrasia of various kinds: thus the syphilitic dyscrasia, it is well known, predisposes to purulence. Typical chancroid, destructive and inoculable in generations, have been

**i. e.*, descended in unbroken line from the first chancroid, as claimed by those who assert its specific origin.

[†] Bumsstead, p. 317.

repeatedly proven to result from the inoculation of pus from an irritated syphilitic chancre, also from the purulent secretion of secondary syphilitic lesions, and also from scabies and acne. Baumler, a recent German authority, says: "According to its source and mode of its origin, as well as the *susceptibility of the individual affected*, will the pus poison and evince this (chancroidal) property in *greater or less degree*.

Whence the pus derives this property, in what it consists, and why all pus does not possess it alike, are questions yet to be solved."*

Inoculability, then, is not a reliable test as to the origin of a sore.

Again, inoculation of a leucorrhœal secretion, especially from a cervicitis or a metritis, has been claimed capable in certain instances of producing inoculable sores. This is further proven by the following extract from a distinguished authority:—

"In March, 1840, a woman† from the neighborhood of Arles, aged 22, and remarkably beautiful in form and appearance, was thoroughly examined, as was supposed, by Prof. Lallemand, and no symptom of venereal disease was discovered. This examination was made at the request of an officer, who complained that she had infected him; and several similar complaints being subsequently made by others, she was sent to the police station, where she was again examined by M. Delmar, in the presence of a considerable number of students. *The neck of the uterus still appeared healthy*, but on pressing it with the speculum it discharged a muco-purulent fluid, which was inoculated in four places upon the patient's thigh, *with the effect of producing four well-marked chancroids*." In this connection it will be interesting to recall the cases in the previous lesson where ulcerative lesions on the penis resulted upon contact with virtuous women who suffered only with subacute metritis. How do these women differ from the beautiful woman of Arles as to the character of these uterine secretions? Contact with them produces sores proven to have a contagious property. Must we, then, say that they are the subject of chancroid in the interior of the cervix or uterus? The woman of Arles communicated *chancroid*, because she had a uterine leucorrhœa, and because she was a prostitute, not because she had chancroid. The most rigorous and repeated examinations failed to find any chancroid upon her, and yet she was *the source of chancroid to others*. The man, whose urethral sore communicated a similar sore to his wife's urethra, had not chancroid, because his sore was acquired from contact with menstrual fluid under circumstances of unusual excitement, from a lady of supposed virtue, and not from a prostitute.

The foregoing cases and remarks are chiefly intended as a preface to the final and important statement that the elements of destructiveness and contagiousness in a venereal lesion are not, in my opinion, dependent upon a *specific virus*, but are engendered by various causes and conditions; and that, clinically, we shall have to deal with venereal lesions in every degree of activity, which activity will be found to depend as frequently upon the constitution and circumstances of the patient, as upon the variety and origin of the sore from which his chancroid was derived. We may then say that *chancroid*—

1st.—Begins as a destructive process, either upon a pre-existing lesion, or upon sound tissue. It is usually set up by contact with the purulent secretion

of a similar destructive process, which had a similar origin, or which may have been developed from a suppurative process of a lower grade.

2d.—The destructive process thus initiated (either upon sound tissue or upon a pre-existing lesion) proceeds steadily to the formation of a pustule, or an ulcerated surface, by a more or less rapid molecular necrosis. This necrosis, occurring under differing conditions and in different localities, gives rise to characteristic forms of the chancroidal lesion which may be described as follows, viz.:

1st.—*The Chancroidal Abrasion*; 2d.—*The Pustular Chancroid*.

These may be again divided into the *slowly destructive* and the *actively destructive* varieties. We may have as modifications of these,—

FROM CONDITION.

The Indurated Chancroid.
The Inflammatory Chancroid.
The Gangrenous.
The Phagedenic.
The Serpiginous.

FROM LOCALITY.

The Follicular, Papulo-Pustular, or Acneiform.
The Ecthymatous.
The Bubonic.
The Urethral.
The Rectal.

The Ex-Ulcerous Chancroid of Clerc and the Ulcus Elevationum.

Modifications of all the foregoing forms and varieties, by the *coincident development* of implanted syphilitic elements on the site of the chancroidal lesion.

We will next study a little more in detail each of these characteristic forms of

THE CHANCROIDAL LESION.

First.—As to the *origin of the Chancroidal Abrasion*. Abrasions of mucous membrane are frequent as the result of violence during the act of coition; they occur most frequently about the fourchette and the vestibule of the female, and about the preputial orifice and the frenum, and along the preputial reflection of mucous membrane behind the *fossæ glandis* in the male.

All injuries of this character, on being brought into contact with the secretion of an active chancroid, are at once inoculated, and the suppurative action is thus initiated over the entire surface of the lesion. It is to the abrasion, thus complicated, that the term *chancroidal* is applied. To the naked eye it appears at first like a simple scratch or chafe, but an examination of its secretion shows abundant pus corpuscles, within three or four days, and often within twenty-four hours. By the aid of a good magnifying glass, the advancing molecular necrosis may be seen, in the dentated edges, in the minute, sloughing points on the surface of the lesion, and the secretion is inoculable. Sooner or later, in accordance with conditions which are known to render chancroidal lesions more or less active, the abrasion may be merged into the characteristic chancroid. Its shape, which at first corresponds with that of the surface inoculated, now changes through the advancing ulceration; the edges become ragged and abrupt, the floor, excavated and covered with the debris of disorganized tissue, gives rise to a profuse secretion of pus. The time for these changes in different cases may vary from a few days to several weeks.

Second.—As to the *origin of the Pustular Chancroid*.

The pustular chancroid arises either from the erosive property of the chancroidal secretions which have been deposited in the folds of integument or mucous membrane, or from the absorption of the secretion into the follicles of mucous membrane, which have been bathed in the secretion of chancroid.

* Ziemssen, Vol. III., Am. Ed., pages 94, 95.

† Burnstead, p. 359.

The time of its appearance after contact varies from three or four days to eight or ten, and in certain authentic instances even longer.* Occasionally single, it is accompanied, as a rule, or soon followed, by others in the immediate vicinity or at different points. Commencing as a fine whitish speck, scarcely larger than a pin's point, it soon increases in size, and, unless occurring on an already inflamed surface, presents a distinctly inflamed border. Its progress (more or less rapid, according to circumstances and conditions which are known to increase or retard its activity) is by an acute ulceration, before which the tissues give way in irregular form, both at the edge and floor (as heretofore described in case of its advance from a previously abraded surface), accompanied with more or less local inflammation and pain. Its progress, like that of the chancroidal abrasion, is variable. In typical cases, under circumstances of usual health and condition, reaching to the size of a five-cent piece, and penetrating to the depth of one or two lines, in the course of three or four weeks, while, under other circumstances, its depth and its extent may be greatly increased.

These peculiarities of the action of the chancroid are the same, whether beginning on an abraded surface or as a pustule, and warrant the division of chancroid into the two forms previously noted, viz.: the *slowly destructive* and the *actively destructive*.

To show you that this division is not simply a technical one, I will recall four cases presented to you at our last two sessions, which illustrate the validity of the distinction.

CASE I.—Wm. B., waiter, about twenty-five years of age, gave a history of exposure through vicious sexual contact eight weeks previously. Four or five days after, he noticed several white pimples on his prepuce behind the *fossæ glandis*. He touched them with "blue stone" from time to time, and after a

week others came on his glans penis. He then used a wash and kept them clean, but they refused to heal until he went to Charity Hospital about a week ago, seven weeks after their appearance. Here the sores on the prepuce were cauterized, on several occasions, with nitric acid, also three on the glans, about the size of a pea. His general condition as he came before us was fair, not rugged. He presented several superficial cicatrices on the internal reflection of the prepuce, and a raw surface about the size of a three-cent piece, yet unhealed, but granulating well. On the glans were three fresh cicatrices, which, as I was careful to show you, matched exactly upon three distinct cicatrices on the prepuce when drawn forward. This case I presented as chancroid of the first variety; demonstrated as slowly destructive, and also contagious, as proven by auto-inoculation.

CASE II.—A blacksmith, aged forty-five, was shown you in contrast. A large, pallid man, evidently in low condition. Just two months before, he also had a connection, and no trouble resulted for the next ten days, when his attention was attracted to his penis by soreness. He then discovered three inflamed pimples, one on a redundant prepuce and two on the body of the penis. These progressed steadily, and thinking they were simple boils, he neglected them until the scabs came off a few days ago, when he found deep ulcerations in their place, each as large as a dime. He was admitted to Charity Hospital, and the sores, which were recognized as typical chancroids, were cauterized with nitric acid. When shown to you, three days after, they were still of the same size before mentioned, and fully one-fourth of an inch deep, penetrating fully and sharply the swollen integument. This case was presented as illustrating the *actively destructive* variety of chancroid. With much the same history as the first, it was yet seen to be in marked contrast with it in regard to the activity of the destructive process. There was no history of any antecedent syphilis in either case.

The third case was of a lad of 20. He was in good health, history of an impure connection four weeks previously; a pimple near the frenum appeared five or six days after; this he treated with repeated applications of "blue stone," and it healed in a couple of weeks, having carried away the frenum. A soreness of the right groin then set in and culminated in an abscess; this I opened before you, discharging about an ounce of unhealthy looking pus.

Both its appearance and course were spoken of as characteristic of the chancroidal bubo. The locality of the original sore was pointed out as one most liable to be followed by such an accident, inasmuch as the lymphatic vessels connecting this point with the glands of the groin are known to be numerous and superficial. No other cause for such a complication could be elicited.

The fourth case presented to you last week came to our clinic the week previous, too late in the hour to be available as an example. The young man, twenty-five years of age, gave a history of impure connection the week previously, and had just discovered a little sore just within the urethral orifice. A little feeling of hardness associated with this sore and the long interval since the connection, gave rise to suspicion of syphilis. In order to clear this up, two inoculations were made under the left nipple of the patient by Dr. Bangs, our chief clinical assistant, and the patient was ordered to report on the following Saturday, two days after; this he failed to do. He was presented to you one week after, with a sore which had penetrated fully one-third of an inch, and had completely

* The follicular starting-point of the disease assumed by Collier, Bunnstead, Acton, and others has been substantiated by a case which came recently under my observation. Mr. W. came to me complaining of having bruised his glans penis during a connection four days previous. On the morning following the indulgence the part felt very sore and was swollen and inflamed. These conditions had been gradually increasing in intensity until he presented his case to me. I found the inferior portion of the glans much tumefied from the menses back to the *fossæ glandis*, and for half an inch on either side of the median line (the frenum had been smoothly carried away by a chancroid ulceration, for which I had treated him a year previous). The injured part was swollen, and presented a smooth, shining surface of a deep red color. By the most careful examination, with the aid of a magnifying glass, I could not discover any point of abrasion or solution of continuity whatever. I advised a simple water dressing, slinging up the penis, so that engorgement from the dependent position of the organ might be relieved, and as perfect rest as possible obtained. He called on the following day somewhat relieved, but in appearance the parts had not improved; the color was even deeper than on previous examination. A wash of lead and opium was substituted for the water dressing, and the patient advised to keep the recumbent position. On the next day, the third from his first visit to me, and the seventh from the impure connection, he again presented himself. The tumefaction was much the same: the color had deepened, and was now of a violet tinge, and I discovered, as though under a glass, numerous pale whitish points varying in size from a pin's point to a pin's head, occupying a space a quarter of an inch broad, and one-third in length on either side of the median line on the inferior aspect of the glans. Previous treatment was continued, and I saw my patient daily for three days following, making in all ten days from the connection. On the morning of the tenth day I discovered some half a dozen whitish points just underneath the mucous membrane; these were then opened into with a fine pointed bistoury, and discharged minute quantities of pus. Under the magnifying glass, the little cavities left after the discharge of the pus were characteristic of chancroidal ulceration. In brief, all the points, some twenty or thirty in number, finally worked their way to the surface, occupying some three days longer, and they soon coalesced from the extension of the ulceration process, resulting in a true chancroid three-fourths of an inch in length by one-third of an inch in breadth, occupying the site of the original white points. The first pustules were visible through the mucous membrane, but evidently deeper than its thickness on the seventh day after the absorption. The first of these came to the surface on the tenth day, but it was not until the thirteenth that all had reached the mucous membrane on their outward march. Applications of the strong nitric acid resulted in a complete recovery in a few days.

carried away the right side of the meatus, exposing the urethra for that distance. The attempted inoculations, as shown you, were wholly abortive, although as I saw them one-half hour after the puncture they were surrounded by a congested areola of half an inch in diameter.

This case I presented as demonstrating several points: 1st. The long interval of apparent incubation. 2d. The slow progress of the lesion up to the week previous, thus marking it as belonging to the slowly destructive variety of chancroid, if it were chancroid. 3d. The sudden change from the slow to the actively destructive variety. 4th. The failure of a carefully performed inoculation of the secretion of the lesion upon the person of the patient, thus going to prove that a destructive chancroid may, under certain conditions, fail to give an affirmative proof by inoculation as claimed by Böck and others.

Now, while I do not present these cases as absolutely proving the points I desire to illustrate (as there may be various valid objections urged against them), yet I claim that they form links in a chain of evidence, which may be forged to show that chancroid is of variable quality and force, and also that the quality and force is determined not by any specific virus, but by circumstances and conditions. It will be well for all who study and treat this disease to be cognizant of this, and to consider the causes which are known to affect the degree of destructiveness and contagiousness in each case, instead of attaching too great importance to the dogmatic and unsupported assertions of those who claim one continuous lineal descent for all inoculable and destructive venereal sores.

It may, I think, be safely claimed that the character of a chancroid is greatly dependant upon the degree of activity of its immediate predecessor, and that it may itself be modified or intensified by the following influences:

1st.—General condition of the person so inoculated, especially in relation to any diathesis or dyscrasia.

2d.—Locality of the inoculation.

3d.—Influence of alcoholic stimuli, low and irregular living, etc.

4th.—Local sources of irritation, such as standing at work, walking, or horseback exercise, indulgence in coitus, uncleanness.

5th.—Application of external irritants, administration of internal medicines, especially mercurials.

For the convenience of description, various names have been applied by authors to designate the several modifications of chancroid. These have been already cited, and will be seen to fall naturally under two heads, as modified by condition and locality.

We shall consider next,

THE MODIFICATION TO WHICH THE DIFFERENT VARIETIES OF CHANCROIDAL LESION ARE SUBJECT FROM CONDITION.

First:—The Indurated Chancroid. The uncomplicated chancroid has a soft base and edge, differing in suppleness, but little, if at all, from the surrounding tissue. In this condition we have a valuable diagnostic mark separating chancroid from the initial lesion of syphilis, which in typical cases presents a distinct induration of the tissue on which the lesion is located. Venereal sores often present, however, about which a varying amount of induration is present; not seldom occurring at an early period in a chancroidal lesion, before the loss of substance is well marked, or coming on later, in a well-marked chancroid, giving rise to suspicion of underlying syphilitic action. It is well then to understand that

such induration may result from any form of irritation, and may be a purely inflammatory aggregation of cell material. Chancroids thus complicated are termed *indurated*. The test of the nature of the induration in any case is by treatment. If the induration is thus rendered more dense and sharply defined, it will prove, as a rule to which there are few exceptions, that it is the result of true cell growth, caused by the syphilitic influence, and that the lesion is either the initial of syphilis complicated by accidental ulceration, or that it is a true chancroid complicated with syphilis.

If, on the contrary, the induration disappears wholly under the influence of rest and local sedatives, it is of an inflammatory character, and the lesion so complicated is proven of purely local nature, and has thus been but an *indurated chancroid*.

Second:—The Inflammatory Chancroid. Instead of becoming indurated under various causes of irritation as in the previous variety, the tissue surrounding and underlying the chancroid may become more tender and swollen, assuming a puffy appearance, and the surface more intensely red and extended.

This condition may supervene upon any stage of chancroid, whether slowly progressing or healing, and is the evidence that a more rapid destructive action has been initiated or is imminent.

The same condition may obtain on the early appearance of the chancroid as a result of intensity in the secretion inoculated, or from constitutional taint, excess, sexual and alcoholic, as well as from local irritations.

The Gangrenous Chancroid is but the fruit of the unrelieved inflammatory form, usually the result of interference with the circulation of a part by swelling and inflammatory infiltration of the tissues, in which case, sloughing of contiguous structures occurs *en masse*; especially is this apt to take place in debilitated and dissipated subjects. When occurring upon persons in good condition it is the result of some mechanical constriction, as in case of subpreputial chancroids complicated with phimosis.

The occurrence of gangrene, in such case, once announced by the fetid odor, if not arrested by treatment, will require but a few hours for the deep red surface of the inflamed prepuce to turn black, and the slough to disintegrate and separate from the living tissue at or near the line of constriction. The effect of the gangrenous accident is to destroy all contagiousness in the associated chancroid, and the parts heal, after the falling of the slough, as if no such complication had been present.

VENEREAL PROPHYLAXIS.—The subject of how to indulge the passions without physical injury or infection is made the subject of scientific study by a Parisian. In a work addressed to "Émile"—who represents the erotic class in general—the virtues of various forms and methods of protection are discussed in a broad and judicial style. Truly, Paris stands at the head of civilization.

BROMHYDRATE OF MORPHINE.—This drug is being used as a substitute for the sulphate. It is more soluble in water, and is twice as powerful. It combines the sedative effects of the bromine with the anodyne properties of the morphine. It is not so dangerous, and is not so apt to be followed by unpleasant symptoms. It is the drug especially for irritative affections of the spinal cord. This is claimed by Dr. Landrieux, in the *Journal de Thérapeutique*.

Progress of Medical Science.

MORBUS WINCKELII: A HITHERTO UNDESCRIBED DISEASE OF NEW-BORN INFANTS.—On the 19th of last March, a child in the Maternity Hospital, in Dresden, was taken sick with very peculiar symptoms on the third day after birth. This case was followed by others, constituting an endemic which lasted, with an interval of ten days secured by isolation of the patients, until the 21st of April. Twenty-three infants were attacked, and nineteen (82 per cent.) died, after an average sickness of thirty-two hours. Of the four who survived, one was cured, one was taken from the hospital greatly improved, and two were taken away while still laboring under the disease. The patients were attacked between the first and twelfth days of life, most of them on the fourth day. They were almost all born at full term; the labors were normal, and the mothers passed through the puerperal period without accident. Of the children attacked, nine were boys and fourteen girls; eighteen were nursed by the mothers.

The following account of the symptoms presented by the first child attacked after the ten days' interval is given by the reporter, Dr. Winckel, and will answer as a description of the disease: the mother was confined ten days after the last child had been attacked, and had watched once, before her confinement, in the ward in which the sick children were placed. Her child was robust, weighed nine and a half pounds, and cried lustily. It was put to the breast on the day after its birth, but it drank little and seemed dull. On the second day the characteristic symptoms were present: cyanosis of the entire body, conjunctivæ slightly jaundiced, sighing respiration, hemoglobinuria, the urine being pale brown in color and passed frequently and with bearing-down movements. The urine contained also epithelium from the bladder and renal pelvis, granular casts with blood-corpuscles, micrococci and masses of detritus, urate of ammonia and albumen. The temperature was normal—in no case was there any fever. The condition of the blood was very remarkable. When a slight incision was made in a cyanotic spot, the blood did not flow unless forcible pressure was employed. It was as thick as syrup, and almost blackish brown in color. Microscopically, Dr. Winckel found an increase of the white corpuscles, quantities of small granules (debris of the red blood-globules), and small corpuscles with molecular movement. The abdomen was not distended, and was normally soft. Liver somewhat enlarged. Thoracic organs normal; heart-sounds somewhat muffled. Later on convulsive movements of the extremities and eyes set in, and a few hours afterward death took place in more violent convulsions.

Results of the Autopsies.—Umbilical vessels diseased in one case only. Liver swollen, dark brown, sometimes in a state of granular degeneration. Spleen thickened and enlarged. Pancreas excessively hyperæmic. Kidneys, the cortical substance brown, often with darker streaks; in the papillæ frequently hemoglobine infarctions. Stomach always greatly dilated, sometimes like a balloon, presented a few ecchymoses. Below the duodenum a series of ecchymoses began, which were thickly sprinkled over the mucous membrane of the entire intestines; swelling of Peyer's patches; enormous swelling of the mesenteric glands; ecchymoses of the pleuræ. In the brain, œdema and dilatation of the ventricles; in the

membranes, marked hyperæmia and a few small extravasations, and, in a few cases, pronounced icterus. Etiologically, it is as yet only possible to say what the affection was *not* due to. It could not be due to the effects of the delivery, to puerperal infection of the children, to poisoning by morphine, opium, phosphorus, carbolic acid, or chlorate of potash, to errors in diet, or to the action of heat by baths given at too high a temperature; nor could any cause be discovered in the clothing or the air of the wards. The *agens morbi*, whatever it was, must have been very intense; it must have penetrated directly into the blood, and perhaps made its way into it through the digestive tract, as the most intense derangements were met with there.

Dr. Winckel calls the affection "cyanosis afebrilis icterica perniciosa cum hæmoglobinuria," but it has been suggested to substitute for this formidable name the simpler term "*morbus Winckelii*."—*Deutsche Med. Wochen.*, 1879, Nos. 24, 25, 33, 34; *Centralblatt für Gynäk.*, July 19, 1879.

OCINUM BASILICUM, A NEW ANTHELMINTIC.—This plant, which is known in Buenos Ayres under the name *albahaca*, exerts a powerful action on intestinal worms, expelling them from their haunts with very great rapidity. The part used is the juice, and it is given in doses of about two ounces, followed in two hours by castor-oil. It acts more powerfully and certainly as a vermifuge than calomel, santonin, kousso, or kamala, and, on the other hand, possesses the great advantage of doing no harm if worms be not present, exerting then merely an aperient and disinfectant action.—*Allg. Med. Cent. Zeit.*, July 26, 1879.

TREATMENT OF TAPE-WORM BY SALICYLIC ACID.—Dr. Ridder reports two cases in which he gave salicylic acid to remove tape-worms, with the most satisfactory results. The mode of administration was as follows: An ounce of castor-oil was given in the morning, and the patient's diet was restricted during the day, so as to keep the intestinal canal as empty as possible. On the following morning half an ounce of castor-oil was given at 7 o'clock; at 8 o'clock 12 grs. of salicylic acid were given, and this dose was repeated every hour until a drachm of the acid had been taken; half an hour after the last dose, another half-ounce of castor-oil was administered. In one of the cases the worm was passed about 1 P.M., and in the other about 3 P.M.; both were examples of the *tenia solium*, and both were passed entire, with the head. After the passage of the worms the rectum was washed out with injections of water. The only unpleasant effect produced by the treatment was a slight nausea, which was not, however, bad enough to keep the patients from returning to work on the same afternoon.—*Allg. Med. Cent. Zeit.*, July 30, 1879.

SCILLINE, SCILLIPICRINE, AND SCILLITOXINE: THE ACTIVE PRINCIPLES OF SQUILL.—Squill, though deservedly placed in the first rank among diuretics, labors under the disadvantages of being uncertain in its action, owing to the difficulty of obtaining the bulbs in the proper condition, and of possessing an acro-narcotic principle which proves poisonous to some individuals, even when only moderate doses are taken. These disadvantages are now overcome, it is claimed, by Merck, of Darmstadt, who has succeeded in isolating the active principles of the bulb, and is thus enabled to exclude the poisonous principle and obtain a uniform preparation, which is adapted even for subcutaneous use. The substance called *scillitine*, which has been obtained from the fresh bulbs by ex-

traction with alcohol, is a mixture of the three principles separated by Merck, a fact that accounts for the variability of its action. Dr. Frommüller, of Furth, has tested Merck's three preparations of squill on fifty-three cases, and draws the following conclusions concerning them:

1. Scillitoxine in the majority of cases produces pretty free diuresis, but it contains the greater part of the toxic principles of the squill, and hence is not suited for clinical use.

2. Scilline also is not adapted for practical use, because it exists only in minute quantities in the bulb, is very dear, and seems to be inactive unless given in large doses.

3. Scillipicrine, dissolved in water and administered hypodermically, has proved to be a diuretic of the first class, second to none other in efficacy. Out of seventeen cases of oliguria, it failed only twice. In twelve of the fifteen successful cases the quantity of urine was doubled and often even more, and in one it was increased sixfold. No symptoms of poisoning were produced, thanks to the separation of the scillitoxine. The only disagreeable effect produced was a more or less intense irritation at the site of the injection; this was absent only in two cases, and in four it was pretty severe. In one case four tablespoonfuls per diem of a two per cent. solution of the scillipicrine were given internally without any effect. For the subcutaneous injections a ten per cent. solution was employed in most of the cases; in only one is it stated that a second injection was practised. In two of the cases, the increased excretion of urine was accompanied by thin passages from the bowels.—*Allg. Med. Cent. Zeit.*, Aug. 6, 1879.

BROMINE VAPOR IN THE TREATMENT OF CROUP.—Dr. Netolitzky has employed the treatment of croup recommended by Dr. Schutz three years ago, in nine cases with seven recoveries. He used the following formula: B. Bromi puri. Potass. bromidi, 55 grs. vijs. -xv.; Aquæ 3 v.-vij. M. This solution was poured on a small sponge or on cotton, and the patients inhaled the vapor given off by it for five or ten minutes every half-hour. The potash is added to retard the too rapid volatilization of the bromine, which necessitates also a frequent moistening of the sponge or cotton. When there was a tendency to renewal of the exudation, the inhalations were continued for a prolonged period, but weaker solutions were used. Ipecac and other expectorants were given at the same time. One great advantage of these inhalations is the facility with which they can be administered, no special apparatus being required. They do not excite any affection of the respiratory organs, are not specially liable to excite cough, are easily borne, and can be employed at any age. Bromism was not produced in any of the cases. Dr. Netolitzky does not regard the bromine inhalations as a specific for croup, but the results obtained by himself and others have been so favorable, that he feels justified in recommending the method of treatment warmly to the profession.—*Allg. Med. Cent. Zeit.*, August 16, 1879.

SUFFOCATION FROM THE ENTRANCE OF ASCARIDES INTO THE AIR-PASSAGES.—Dr. Fürst reports a case of death from this cause observed in Billroth's clinic, and has found records of 23 other cases since the time of A. Von Haller. In this case the child while under treatment for another affection was suddenly seized with symptoms of suffocation. Tracheotomy was at once performed, but some obstacle prevented the introduction of the catheter, which was used because no canula was at hand. The child died, and after

death a lumbricoid worm, which had in all probability obstructed the larynx, was drawn from the nose.

A similar case was reported last year by P. Donati. A boy, five years of age, while suffering from constipation, vomited a lumbricoid worm; a dose of castor-oil was also vomited without moving the bowels. In the following night the child vomited again, and was then seized with an attack of suffocation in which he died. No history of previous attacks of dyspnea could be obtained. At the autopsy, an ascaris lumbricoides was found sticking, doubled on itself, in the larynx and trachea, entirely obstructing the lumen of the tube. The worm was eight inches long. A second ascaris was found in the larynx, caught in the loop formed by the first, and two more were found in the pharynx and oesophagus.—*Centralblatt für Chirurgie*, July 12th, and Aug. 23d, 1879.

EXTERNAL APPLICATION OF THE BROMIDE OF POTASSIUM.—The good effects obtained from bromide of potassium in all reflex irritations due to teething are well known, but M. Peyraud claims that better results can be obtained from direct local application of the remedy to the gums, than from its internal administration. He uses a mixture of the bromide one part, to honey six or seven parts, with sufficient water to dissolve the salt, and enough alcohol to preserve the mass. This should be gently rubbed on the gums four or five times a day; in cases of diarrhoea caused by dentition, a few drops of Sydenham's laudanum may be added with advantage. The bromide acts as an anæsthetic to the mucous membrane, as a caustic to excoriations, and through its effect on the general nervous system. It quiets immediately the urticaria of dentition, and under its influence those excessively nervous children in whom the eruption of the teeth is irregular and difficult, pass through this period without convulsive phenomena.

M. Peyraud has also used it with success in caries of the teeth and of some of the long bones, and in diphtheria. Carious teeth he fills with powdered bromide, which is retained in its place by a tampon of cotton; the first application calms the pain in about twenty minutes, and the tooth gradually becomes insensible. In caries of the long bones the fistulæ are washed out with a solution of the bromide in glycerine and water. Diphtheritic membranes are powdered with the finely pulverized salt, every two, three or four hours, according to the severity of the case. A cure results in from twenty-four hours to five days, the average being about three to four days.—*Journal de Médecine*, August, 1879.

WORMS IN THE NASAL CAVITY EXPELLED BY MEANS OF CHLOROFORM.—A woman, twenty-nine years of age, was attacked by variola in the ninth month of pregnancy; normal accouchement occurred on the second day of the eruption, the disease following its regular course. During the period of desquamation, a fly entered the nasal cavity and deposited there its eggs, which were soon transformed into larvæ. Fever, violent cephalalgia, and multiplication of the larvæ followed. Insufflations of calomel and injections of salt water were useless. Dr. Garuco then had recourse to inhalations of chloroform, and, at the first trial, seventy larvæ were expelled. This treatment was repeated every day, and completely relieved the patient. Experiments with some of the larvæ showed that, at first, chloroform caused very active movements, after which all movements ceased and complete inertia ensued.—*Gaz. Med. Ital.*, and *La France Médicale*, August 23, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 4, 1879.

THE MECHANICAL TREATMENT OF POTT'S DISEASE.

I.

From the earliest times of which we have any medical history to the present, the treatment of spinal deformities has received the attention of physicians, and yet it seems to be an unsettled question how these cases should be managed. It is true that the pathology of this affection is now well understood, and the indications for its treatment are distinct; yet if one consults the different treatises on this subject, he will be astonished at the divergent views expressed by their authors as to how these indications shall be carried out. There has, we fear, been too much dogmatic writing, special pleading, and claiming of better results than can be obtained by any method of treatment in a disease of the nature of the one we are considering.

It seems to us that a review of the subject of the treatment of spinal deformity may not be out of place at this time. The indications for treatment in angular curvature are to place the parts at absolute rest, to remove pressure from the diseased bone, and at the same time to permit the patient to go about. The bones involved in the disease are so situated that only the posterior portion is accessible for the purpose of any direct support, and fixation can only be obtained indirectly by rendering the whole trunk immovable in either an antero-posterior or a lateral direction. Whatever mechanical device, splint or brace is used must, therefore, encircle the whole body. The scapulæ, not being fixed points, are entirely useless for the purpose of support or extension. Any apparatus, therefore, that depends on an axillary crutch to assist in supporting or extending the spine, is constructed on a wrong principle, and will prove a failure so far as the crutch is concerned. The spinal column, with reference to support when it is diseased,

may be divided into two parts, namely, that above and that below the seventh dorsal vertebra. Below that point dependence can be placed in the encircling bandage or brace; while above, support must be provided for the head, so as to keep the parts above from pressing on and irritating the diseased points.

We have mentioned the seventh dorsal as the point above which support for the head should be provided. Dr. Wyeth says the fourth dorsal; but it is necessary that the support should extend considerably above the point of disease in order to obtain fixation, and we think that it is much better to err on the side of supporting too much rather than too little. This is accomplished by either a chin-piece, as in Taylor's brace, or by suspending the head, as done at the Hospital for Ruptured and Crippled, and by Dr. Sayre, and then throwing the part back so as to transfer the weight as much as possible from the bodies of the vertebrae to their transverse processes. We think that all orthopaedic surgeons agree in regard to the above points. The question is, How can this be best accomplished? There has, unfortunately, arisen a personal element in the advocacy of this or that mode of meeting this indication. Dr. A condemns as worse than useless the apparatus advocated by Dr. B. Dr. B considers Dr. A's bandage filthy, etc., while Dr. C thinks that both Dr. A's and B's splints fail fully to meet the indication, but that he has one that is *absolutely* perfect. Patients who, before having it applied, had to be carried on a stretcher, after having it adjusted immediately walked about. The truth is, that *any apparatus or bandage* that gives *good* support to a diseased spinal column is a good spinal brace, no matter how or of what material it is constructed. It would be as foolish to contend that there was only one splint for the treatment of a fractured limb as to confine the treatment of caries of the spine to one pattern of brace.

Spinal supports may be divided into two classes, namely, those made of steel (as Taylor's), and those made of some material that hardens after being applied—as the plaster-of-Paris jacket, the felt splint, or the paper mould. We will mainly refer to the use of the plaster-of-Paris bandage, or jacket, as it is more commonly called, and the steel brace.

Those who use the steel brace claim that it is cleaner, is less liable to get out of order, and meets the indication better than the plaster-of-Paris jacket; while, on the other hand, the advocates of the plaster-of-Paris jacket think that it is easier applied, that it is more comfortable, and that better results are obtained by its use than from any other splint or brace. In discussing this subject, we labor under a great disadvantage in not knowing the full results of treatment. In the case of fractures of the limbs we have an absolute standard to guide us, and statistics can be relied upon. But in Pott's disease there is no fixed

standard, and what one might call a good result may not be recognized as such by another.

At the recent meeting of the American Medical Association, Dr. Sayre presented statistics of the results obtained by him in one hundred and nine cases of spinal disease. We have not seen the paper, only the table, and in the absence of the former, and of any similar tables prepared by others working in the same department, it would be unwise to draw any conclusions. The exhibit is certainly excellent; but in dealing with a subject of this kind we must not forget that a low rate of mortality cannot be entirely attributed to the mode of treatment adopted. The aim is for something beyond the mere saving of life—it is the prevention of deformity, or any further increase of it; and in fact it is upon these elements that the real value of tables of statistics must depend.

It is true that every year or so papers are read before one or more of the medical societies on "my method" of managing cases of Pott's disease, and patients are exhibited illustrating the results obtained; but we have always noticed that they are those that have done remarkably well, and, it is to be feared, are not a fair sample of the general results. There are many, very many, cases that do badly, no matter what mode of treatment has been adopted, and of these we hear nothing. For disease in the lower dorsal and lumbar region, as good support can be obtained by the use of the plaster-of-Paris jacket as with a Taylor's brace. Its drawbacks are that in young children it will get soiled, no matter how much care is taken, and it is liable to chafe, even when put on by those thoroughly skilled in its application, and troublesome eruption on the skin has been frequently seen under the splint—an accident that may occur with any form of apparatus that completely encircles the body.

It is to be feared that its advocates claimed too much for it. Any one who has had much experience in the use of plaster-of-Paris must be aware how liable a splint made of this material is to become loose after a week or so. No matter how tightly it has been fitted, the edges are liable to get soft and crumble, and a new one soon has to be applied. The same difficulty has been experienced with the plaster jacket. It is claimed that when the bandage is properly adjusted it is molded into the intercostal spaces, and that in this way the ribs are fixed. The possibility of accomplishing this while the patient is using his lung has been questioned; and then, if the difficulty were removed, the thick flannel shirt over which the plaster bandages are applied, might tend, by its elasticity, to prevent the accomplishment of this end.

Of course, these remarks apply with equal force to all supports of this character.

THE GROWTH OF STATE MEDICINE.

IN examining the last annual reports of the various city and State Boards of Health, we are struck with

the marked increase in the variety and value of their contents. The contributions cover an unusually wide ground, and show that sanitary science can be brought to bear not only upon social and economical, but even upon literary and artistic matters. At the present rate, indeed, hygienic law and studies will soon interpenetrate every phase and period of a civilized man's existence. The State sanitarians have already struck at the very beginnings of life. They have introduced themselves to the infant, and have mingled with scientific data the uncertain joys that attend his growth. The last Massachusetts Report proposes that the puerperal woman be at once supplied with printed forms upon which to record the physical condition and progress of her offspring. Such a plan, it is stated, has been in existence for some time in certain European cities.

As the future citizen develops, his course is attended with a constantly increased watchfulness—a watchfulness that does not forget the collection of the more abstruse scientific facts. Nearly every State Board has examined the school-houses, and has recommended, or caused to be adopted, properly ventilated rooms. The school-boy is given 250 cubic feet of air, where he used to have 25. His eyes are examined, his shoulders kept back, and the light thrown in from behind. In Boston, the boys and girls have been subjected, in addition, to anthropometrical investigations, and charts are given showing how fast the children grow under the high intellectual tension of that city.

In the report of the Wisconsin Board is a valuable paper upon the proper reading for the young; nor, upon perusal, can we do else than believe that State advice and even State regulation is greatly needed in this direction. The class of literature which includes such works as the *Half-Dime Novels*—works which have the odor and suggestion of an intellectual emesis—effects in time quite as much physical evil as imperfect sewers. It is evidence of breadth of view and earnest purpose that scientific bodies speak authoritatively for the State on such subjects.

It has from the first been a prominent purpose of State medicine to protect children from the contagious diseases to which they are subject. With each year more perfect methods of prophylaxis have been devised, and their application has been more widely urged. The recommendations for the prevention of scarlet fever and diphtheria issued by some of the boards—and we may refer particularly to those of Massachusetts and Wisconsin—have been valuable additions to medical science. They have been widely circulated, and, as is shown by many letters received in regard to them, they have excited much interest among the people. This has in turn reflected upon the State Boards; it has made them more popular, and the local town and city boards more numerous. In Massachusetts, sixteen of the nineteen cities and three hundred

and one of the three hundred and twenty-five towns have organized local boards of health, and these make regular reports to the central or State Board.

There is, however, no single direction in which sanitary boards have made more important advance than in that of vital statistics. The collection of such information is a comparatively recent undertaking in this country, and, as would naturally be the case, has been attended with much difficulty. A busy and practical people cannot easily be made to see the importance of registering every birth, marriage, and death. Nevertheless, a foothold has been gained, the sentiment is becoming favorable to such registrations, and already even in some of our Western States very full reports come in each year. We have learned even thus soon, through this work, something of the way in which our nation is growing. Some of the facts have an especial interest to medical men. It is shown that the birth-rate among our native-born population in the cities is approximately only 16.74 per thousand, while that of the foreign-born citizens is 35.28 per thousand. This birth-rate for native Americans is even smaller than that of the French in France. Physicians know best perhaps the true "inwardness" of this state of things; and as regards remedy, although clergymen can preach and statesmen legislate, it is the medical profession that can be of the more direct use in educating people to the beauties of a larger domestic circle, or, at least, in discouraging the means for limiting it.

It will be seen that the aims of the health boards are very far from being confined to preventing the invasion of infectious diseases. The boards are becoming educators of the people to cleaner and better domestic life; they preach against vice, intemperance, and licentiousness, as well as dirt. They are giving valuable advice to architects, book-makers, alienists, as well as to political economists and legislators. And last, but not least, to physicians; in one instance, the creation of a State Board—that of Illinois—has driven fourteen hundred charlatans from its borders.

It cannot be long before such organizations are appreciated everywhere at their full value, and become recognized as most important branches in the administrative service of a State.

INTRA-UTERINE MEDICATION.

We are pleased to give our readers in this number a very interesting summary of a discussion upon the above subject, held in the Obstetric Section of the British Medical Association, and also in the American Gynecological Society, at its annual meeting, lately held in the city of Baltimore. It is an important subject, and worthy of careful consideration by every general practitioner of medicine. The majority of those who participated in the discussion, both in this country and in the British Medical Association, favor the use of this means of treating uterine diseases; yet,

as will be seen, some of the most eminent in the profession regard it as a measure that possesses only doubtful value as a general rule of practice. Upon one point there is an almost unanimous opinion—and that is, that intra-uterine injections are dangerous, especially so in the non-puerperal uterus. An essential precaution, whether used in the puerperal or non-puerperal uterus, is that there shall be sufficient dilatation of the internal os and the cervix to allow of free return of the fluid. In a subsequent number we shall be able to give our readers a more extended report of the discussion upon this and other subjects which took place in the American Gynecological Society.

Reports of Societies.

BRITISH MEDICAL ASSOCIATION.

SECTION C—OBSTETRIC MEDICINE.

Wednesday, August 6, 1879.

DR. GEORGE H. KIDD, OF DUBLIN, PRESIDENT, IN THE CHAIR.

INTRA-UTERINE MEDICATION.

THE discussion upon the above subject was opened by DR. W. S. PLAYFAIR, who took the position that, like all powerful means of cure, it was capable of doing much harm when injudiciously used, but that in properly selected cases there were few methods of treatment possessing greater efficacy. So far from rendering the woman sterile, as had been claimed by some, it had, in properly selected cases, often had the effect of removing acquired sterility.

DR. LOMBE ATHILL, of Dublin, held that the inner surface of the body was especially prone to disease, and to effect a cure the part involved should be specially treated. He placed the symptoms indicating the necessity for intra-uterine medication under the following heads, excluding all tumors and conditions arising from anæmia: 1, derangement of menstrual function, especially dysmenorrhœa and hæmorrhagia; 2, uterine catarrh; 3, pain, especially that caused by pressing the point of the sound against the fundus. He objected to intra-uterine injections, and relied upon fluids or ointments applied by means of cotton and an applicator. The agents he employed were carbolic acid in solution, tincture of iodine, iodized phenol, nitric acid, solid nitrate of silver, zinc points, and crayons of iodoform. Carbolic acid he employed most commonly, because it was safe and efficient; iodized phenol, when a more powerful agent was required, but still it was inferior to nitric acid, which should always be applied to the intra-uterine surface through a tube or canula, and the woman should be confined to her bed for one day at least after the acid had been applied. He feared no unpleasant results when those precautions were adopted.

DR. ROBERT BATTEY, of Rome, Ga., U. S. A., presented the advantages which the iodized phenol possessed for intra-uterine medication. A solution of one part of iodine in four of liquefied carbolic acid was a strength that had proved satisfactory for ordinary intra-uterine medication. One part by weight

of iodine to two parts of carbolic acid made a concentrated solution which could be employed to supplement the curette in the treatment of various conditions, especially cancer.

DR. E. J. TILT, of London, restricted his remarks to intra-uterine medication for the cure of chronic inflammation of the mucous membrane of the body of the uterus. He laid special stress on the fact that internal metritis was present in all bad cases of inflammation of the cervix, and asserted that there would be but little need of intra-uterine medication if the cervical canal was kept free of disease. There were certain conditions, however, in which intra-uterine medication was justifiable, such as internal metritis, independent of ovaritis, but complicated by menorrhagia and dysmenorrhœa independent of ovaritis, and endangering reason and life; membranous dysmenorrhœa; habitual abortion independent of syphilis and ovaritis, and apparently dependent on some morbid condition of the mucous membrane of the uterus; the dangerous reaction in the system, caused by internal metritis, independent of the amount of purulent discharge; loss of blood resisting all remedies, and threatening life. He recommended undiluted injections of tincture of iodine in cases of dangerous flooding from internal metritis, and in membranous dysmenorrhœa. Nitrate of silver in solution was apt to produce severe pelvic disease, and was discarded. He preferred to place five or six grains of solid nitrate of silver in the uterus, but was ready to welcome a better plan than that.

DR. GAILLARD, of Paris, believed that in internal metritis and the various disorders that attack the interior of the uterus, cauterizations were of the first importance, and, to be serviceable to the fullest extent, they should be applied in the fluid rather than in the solid form. He referred to the beneficial use of the curette in cases of "vegetation of the mucous membrane" of the uterus.

DR. ROBERT BARNES, of London, thought that Dr. Tilt represented what used to be the accepted mode of treatment, but which had long ago been left behind. The method of intra-uterine medication that he adopted—for he was an advocate of the plan—was that of "swabbing" the mucous membrane with cotton-wool dipped in medicated solutions. Of those solutions he had used iodine and carbolic acid quite extensively, and thought that each possessed its own advantages. He thought the application of iodine was the most ready way of curing all uterine affections arising from syphilis. He further believed that if the surgeon wished to do any good in certain cases, he must resort to the intra-uterine use of remedies already mentioned.

DR. MACAN, of Dublin, thought that different treatment was required for the nulliparous and the multiparous classes. In the nulliparous the disease of the uterus, in very many cases, arose from closure of the external os. Measures must be first taken to remove that condition, and with its removal the trouble above generally subsided.

DR. WALLACE, of Liverpool, had been struck by the repeated statement made by patients that they had been under treatment for years, being subjected to intra-uterine medication without any alleviation of their suffering. For uterine catarrh, although dependent on many conditions, he had great faith in vaginal douches of hot water, 80° to 120° F., and from two to four gallons, and stated that he had effected a complete cure without any intra-uterine medication.

DR. MALINS, of Birmingham, concurred in the treat-

ment recommended by Dr. Wallace. Experience had taught him that intra-uterine medication was not required as much as had been claimed by many. He believed that in the multiparous uterus hygienic treatment was very important, and the best that could be adopted. He did not dispute that it was sometimes necessary to resort to intra-uterine medication, especially in the cases mentioned by Dr. Athill.

DR. LOMBE ATHILL, of Dublin, agreed with Dr. Macan and Dr. Tilt, that incision of the cervix was sometimes essentially necessary. When there was chronic endometritis he regarded it as impossible to cure the patient without incision of the cervix. He looked upon the vaginal douche as of the greatest value, and employed it freely in the Rotunda Hospital; but it was by no means sufficient in all cases.

DR. WM. H. BYFORD, of Chicago, Ill., U. S. A., believed that, in very many instances, intra-uterine medication could be adopted with safety. When he proposed to resort to the use of strong agents, such as nitric acid, he put his patient under a course of preparatory treatment: kept her quiet beforehand, and in bed two or three days after the application. He did not resort to this form of treatment until several days had elapsed after the occurrence of the menstrual period.

He thought that the condition which usually called for this method of treatment was general hyperemia and more or less hyperplasia of all the tissues of the uterus. Menorrhagia, metrorrhagia, and leucorrhœa, one or all, were symptoms found in that condition. The remedies that could be used with the most benefit, whether hemorrhage was present or not, were vascular nervous uterine stimulants. He had not for many years injected medicine into the uterine cavity, because he thought it was attended with risk to life, and certainly it was painful.

DR. HENRY BENNET, of London, thought it of the utmost importance to secure a good general condition of the patient and the integrity of the surrounding organs before resorting to intra-uterine medication.

THE AMERICAN GYNECOLOGICAL SOCIETY.

Annual Meeting, September 17, 1879.

DR. T. GAILLARD THOMAS, OF NEW YORK, PRESIDENT.
IN THE CHAIR.

INTRA-UTERINE MEDICATION.

THE above subject being before the Society for discussion, DR. JAMES P. WHITE, of Buffalo, remarked that in making application of fluid substances to the internal surface of the uterus, the most simple method would appear to be by injections, and that method was still advised. The experienced practitioner, however, seldom injected medicinal agents into the cavity of the uterus. He recommended the use of applicators in intra-uterine medication—long probe and cotton. He said that the uterus could not be injected with safety, but that nitric acid could be spread over the surface of its mucous membrane without danger.

DR. ROBERT BATTEY, of Rome, Ga., followed, and presented the claims of iodized phenol as a remedy to be used in intra-uterine medication. He applied it by means of an applicator and cotton.

DR. J. MARION SIMS, of New York, without discussing directly the subject of intra-uterine medication, thought that most of the cases reported by Dr.

Batley could have been cured much quicker by other means.

DR. ISAAC E. TAYLOR, of New York, referred to the same method of treatment, for what had been called incurable uterine catarrh, as that mentioned by Dr. Sims; and DR. W. T. HOWARD, of Baltimore, regarded accuracy in diagnosis as of the greatest importance in cases in which intra-uterine medication was suggested, for the symptoms might depend on conditions that could be removed or corrected, and thus avoid its necessity. For the condition known as fungoid degeneration, he coincided in the use of the curette in preference to intra-uterine medication. If the internal os was sufficiently dilated, uterine injections might be used, but they should not be trusted to a nurse.

DR. FORDYCE BARKER, of New York, advocated intra-uterine medication. With regard to intra-uterine injections, he looked upon them as being dangerous when the cervical canal and body of the uterus were nearly normal in size; but when the uterus was enlarged, as after abortion or full labor, it was perfectly tolerant of injections into its cavity. The physician should give them himself. He then referred to cases of cases in which intra-uterine medication was more successful than any other means that could be adopted.

DR. JOHN BYRNE, of Brooklyn, thought that the secret of success in the use of intra-uterine medication was in the accuracy of diagnosis, not only with regard to the condition of the uterus, but more especially as to the question of etiology. The further the departure of the uterus from the normal to the pathological standard, the more tolerant it became of all medication and of all interference. That conclusion he had reached after an experience extending over fifteen years and injecting the uterus more than two thousand times. With reference to injecting the uterus, however, he had long since abandoned it except after using the curette, when he washed the cavity out with salt water, *being sure that the fluid had a good return.*

DR. PAUL F. MUNDÉ, of New York, did not use intra-uterine injections, although he resorted to intra-uterine medication by means of an applicator.

DR. WM. GOODSELL, of Philadelphia, remarked that within the last few years he had been treating uterine diseases by means of intra-uterine medication with a great deal more satisfaction than formerly. With reference to intra-uterine injections, however, if the womb was positively diseased the cervical canal would be stenulous, and there was no harm in throwing fluid into the cavity; but if there was doubt, the use of the measure might better be postponed.

DR. NATHAN BOZEMAN, of New York, was not entirely opposed to intra-uterine medication, but regarded the most important step to be, first, to correct the displacement which was almost always present in certain cases, such as uterine catarrh.

DR. H. P. C. WILSON, of Baltimore, advocated intra-uterine medication, and thought the chief danger arose from too much medication and too free and improper manipulation. He had abandoned injections into the cavity of the uterus.

DR. THADDEUS REAMY, of Cincinnati, treated the cavity of the uterus by medication, but he never employed injections in the non-puerperal uterus. He dilated the cervix and used an applicator.

THE PRESIDENT entertained the view that while intra-uterine medication above the os internum was, in many cases, exceedingly beneficial, it was, as a general rule of practice, one much more honored in its

breach than in its observance. He, however, looked upon intra-uterine antiseptic injections in puerperal fever as the great sheet-anchor of the physician, by whom only they should be administered.

Correspondence.

THE ESMARCH BANDAGE IN STRAPPING THE TESTICLE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Permit me through your columns to call the attention of the profession to the use of Esmarch's bandage as a substitute for adhesive plaster in strapping the testicle after epididymitis or in chronic orchitis. A bandage of pure rubber three-quarters of an inch wide and five feet long is easily applied, keeps in position well, and exercises a uniform and general compression such as is unattainable by any other method. In applying it, the fact that each additional thickness of bandage greatly increases the pressure should be kept in mind, and the whole placed with the exercise of but little tension, as the action of the bandage is, so to speak, cumulative. In covering in the bottom of the testis the turns should be made as in artistically bandaging the head, skull-cap fashion, the adhesion of the rubber surfaces rendering the operation easy.

STUART ELDRIDGE, M.D.,

Surgeon to General Hospital, Yokohama.

YOKOHAMA, JAPAN, Sept. 2, 1879.

CAUSE OF SUDDEN DEATH IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—By accident I omitted to see the number of the RECORD for August 23d, and thus, until yesterday, was unaware that my note on thoracentesis had been honored by a double commentary.

In regard to that made by Dr. Beverley Robinson there is little to say, since the doctor takes pains to show that he really accepts some form of the theory that I advocated; at least to the extent of attributing *death during the operation* to a cardiac rather than to a pulmonary origin. The statement, however, that "death occurs by syncope," is not as precise as that I endeavored to formulate, since the point at issue was to determine *how* the thoracic conditions occasioned by the operation could become a cause of the syncope which necessarily precedes death.

The note of Dr. Van Santvoord contains a valuable addition to the descriptions of the events which follow the sudden aspiration of fluid from the pleural cavity. I did not mention the aspiration of venous blood which unquestionably, according to the theory, should occur. But it is evident that *this is consequent upon the exaggerated diastole of the heart*, the very phenomenon upon which I insisted as the immediate consequence of restored mobility to the chest-walls, for the blood cannot pass to the "imperfectly expanding lung" except by passing through the abnormally expanded heart.

Dr. Van Santvoord justly calls attention to the fact that, at the moment the long immobilized chest-wall first begins to move, the compressed lung is often unable to expand sufficiently to fill the restored thoracic cavity. The aspirating force of the outward-moving

thorax is therefore directed with abnormal intensity upon the heart. In other words, the negative pressure to which the heart is habitually subjected during inspiration, and by which its own diastolic movement is reinforced, is abnormally increased after rapid thoracentesis: 1st, because a part of the chest-wall begins to move which for a long time had been motionless; 2d, because the aspiration is so ineffectual on the lung. But when the diastole of the heart is exaggerated, and its cavities are enlarged, then more blood is aspired into it, both from the pulmonary and systemic veins. Without such previous cardiac dilatations the effect of thoracic suction could not be transmitted to the veins, nor could atmospheric pressure force blood into a heart contracted as in prolonged systole.

Dr. Van Santvoord's observation, therefore, far from contradicting the statement of my note, serves to bring out an interesting additional confirmation of the views therein expressed, namely, that the first effect of the operation was liable to be an exaggerated diastole of the heart; and Dr. Van Santvoord emphasizes the fact I omitted to notice, namely, that this liability was great in proportion to the delay experienced in the expansion of the previously compressed lung.

The reason that the amount of force stored in the cardiac ganglia needs to be taken into consideration is this. As there are about four pulsations or complete cardiac revolutions for every inspiration, we find the inspiratory force exerted, not merely during the diastole of the heart, which it favors, but during the systole, whose force it diminishes. Now, in estimating the effective work of the heart, we calculate especially that of the systole, and as inspiration is antagonistic to this, the pressure it determines is called negative—an expression, I need hardly say, not original with myself. If, in the circumstances under consideration, the force of the systole were increased in proportion to that of the diastole, no harm would ensue. For whatever excess of blood should have been aspired to the heart during one part of the inspiratory movement would be thrown out again before that movement had terminated. This is what happens under the influence of quinine, which also increases the diastole of the heart directly—but indirectly the systole, which becomes strengthened to correspond. After thoracentesis, however, while such powerful agencies are at work to increase diastole, there is no agency in operation to increase the systole; and, as I must beg leave to repeat, since the operations of nervous ganglia are predominantly regulated by habit, there is, during a chronic pulmonary effusion, such a diminution in the respiratory movements of the thorax that the cardiac ganglia must have been obliged to *expend less force than usual to antagonize them*. The question whether or no the heart has had to struggle against greater obstructions does not touch upon this point, which seems to me too obvious for question, and the simple collapse of the lung, more or less deprived of air, does not offer a formidable obstruction any more than do unexpanded fetal lungs. Dr. Van Santvoord thinks that if there has been no cyanosis, the respiratory movements must have been, on the whole, normally powerful during the effusion, the exaggerated expansion of the sound side compensating for the immobilization of the other. Setting aside the fact that impending cyanosis so often constitutes the very indication for the operation, I would suggest that when it is not present it has been averted by exaggeration in the frequency of respiration. The compensation is rarely complete, except in the latent

cases of hydrothorax; hence the characteristic dyspnoea. But increased frequency of respiration, which enables more oxygen to have access to the blood, is itself a proof of diminished force in each respiratory movement, hence diminished aspirations on the heart. By this, therefore, I find myself again brought round to the original thesis, that the cause of death is exaggerated cardiac diastole.

I am, sir, yours truly,

M. PUTNAM-JACOB.

110 WEST THIRTY-FOURTH STREET.

OPIMUM HABITUATION.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The very interesting case of opium habituation, detailed by Dr. W. F. Hutchinson in the RECORD of to-day, prompts me to offer some comments on the various points therein brought forward.

The complex manifestations so strongly symptomatic of direct cerebral disturbance presented at the initial visit, but which, on fuller investigation, were found largely due to a course not at first appreciated, suggest the propriety of careful query in all obscure cases of neurotic disorder as to the probability of this factor in causation—a point of importance in view of the prevalence of opiate indulgence, the facility with which it can be carried on in secret, and especially as no radical result for good can be looked for in such instances without an appreciation of this element and treatment specifically directed thereto.

A study of the clinical history given impresses me with the belief that the varied nervous symptoms were due to a combined action of neurasthenia proper and the opiate tincture; for, with an experience covering several years, and cases in which the narcotic addiction was decidedly in excess, both as to time and quantity, I have never observed some of the signs of disturbed nervous action here presented: but "six years of almost constant pain and general nerve-exhaustion," augmented by the pernicious effect of several ounces laudanum daily taken, would be quite sufficient to provoke profound nerve-disturbance with an exceedingly complicated symptomatology.

The etiology of this case is strongly suggestive. Ten drops of laudanum for post-partum pain—repeated at first with professional sanction, doubtless; later, self-administered, unconscious of peril and unwarned by medical adviser—paved the way for years of misery, which, it is safe to say, might have been avoided, or at least greatly lessened, by the exercise of proper care in this direction, and affords further proof of the danger attending incautious opium-taking in broken-down nervous females. How many women are to-day sitting in a similar shadow is beyond our knowing; but it is known that they swell largely the ranks of opium habitués, and that a large proportion of the deviations from health which induce the use of some form of opiate, are dependent on disorders peculiar to their sex. My personal experience is entirely confirmatory of this statement, and, in conversation with an eminent gynecologist of this city, he assured me his observations were strikingly in the same direction, and that he always strongly inculcated the virtue of extreme caution in the use of opiates in uterine derangements. When this laudable example is appreciated and put in practice by other obstetrical teachers and their pupils, many mothers and daughters of the future will have cause to be grateful for an exemption from one phase of suffering denied their sisters of to-day. The fact cannot be too strongly in-

isted upon that the great majority of opium habitués—among us, at least—are such not from a mere vicious initial indulgence, but because their first acquaintances with it are from its more or less direct professional employment, and afterwards continued for lack of that careful caution from medical advisers which it is their province and their duty to give.

The substitution of chlorodyne was an excellent one as tending to break the chain of *habit*, which becomes of some importance where the opiate withdrawal is prolonged for weeks or months. Opium habitués, in many cases, come to attach no little importance to the fact that they know just what they are taking—they associate a certain cause and effect. Change the form of their opiate—of course without their knowledge of the substitute—break them away from the idea that they must have this or that, and the mental impression is undoubtedly for good. In fact, aided by gradual decrease, lies largely the secret of whatever success belongs to the horde of empirics throughout the country who specially prey on such unfortunates. Besides, laudanum, even in chronic takers, sometimes causes gastric disturbance, which will entirely disappear if morphia be substituted; and as the latter enters into the composition of chlorodyne, this may have had something to do with the subsidence of vomiting in Dr. H.'s case which had become persistent.

There is no question in my mind as to galvanism being the main agent in cure. Something is to be placed to the credit of time and the very gradual opium decrease—four months being occupied in recovery; but that the former deserves the principal share is proven by the fact that in eight weeks, during which no opiate reduction was made, the patient had much improved, and that then withdrawal was begun and continued, which before had failed owing to the prostrated nervous condition and the lighting up of every reflex irritation when any attempt was made. After that time, a doubly good influence was exerted, going steadily forward to health. It may not be amiss to note in this connection that, in a letter received from Dr. Hutchinson since his case was reported, he says: "I regard the quality of current in these cases of prime importance. It should be from a series of large, constant cells, . . . absolutely constant—as I have found the smallest current variations occasionally productive of serious trouble." And Dr. Austin, from a somewhat similar standpoint, wrote: "The first quality that must be absolutely required in a battery that is to be used for this purpose is, that it shall deliver its current with as little as possible variation of tension—in fact, that it shall be *constant*, and not merely *continuous*." Thus employed, we have a remedy exerting a strongly marked tonic effect on the nervous system, and consequent vitalizing action on the system up to that point where it can reassert itself and bring into play a power for good that nothing so prostrates as opium.

The success in this case of gradual opiate decrease along with treatment directed to restoring impaired nerve-tone, proves the virtue of persistent continuance in well-doing, and is sufficient answer to those professional skeptics who assert that "tapering off" will not result in cure. In many cases it will not; the weeks and months required exhausting patients' patience, and unless under professional supervision, making them very apt to abandon the effort. But even where time is an object of importance, and a prompt process is desired, entire and immediate withdrawal is scarcely ever advisable, entailing as it does severe distress of mind and body, both unwise

and inhumane, inasmuch as the good result can certainly and speedily be secured by a method of treatment largely free from such suffering, the plan of *preliminary sedation*—a happy medium between the two extremes—to which I have referred in a former paper. This, which has been pronounced "the most sensible and scientific," offers in suitable cases advantages superior to any of which I have knowledge, and must be observed or experienced to be appreciated as it deserves.

In the case under consideration the treatment was eminently judicious, and patient and physician alike are to be congratulated on the brilliant result.

J. B. MATTISON, M.D.

BROOKLYN, Aug. 9, 1879.

DESTRUCTION OF THE CEREBRO-SPINAL CENTRES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue of Sept. 18, 1879, Dr. Thomas W. Poole has published an article in which he calls attention to an assumed fallacy in the generally received theory that the effect of destruction of the cerebro-spinal centres is to produce vaso-motor paralysis, and, consequent thereon, arterial relaxation. His objection is based on experiments made by himself on rats, kittens, puppies, and frogs, whose spinal cord and cerebral ganglia he had destroyed by opening the upper part of the spinal canal and breaking up the organs in question with an instrument introduced through this opening. The result of these experiments was "that, so far from the arteries being relaxed or dilated with blood, we invariably found them empty, pale, and contracted; while, in marked contrast, we as uniformly found the entire venous system distended, and its swollen tubes dark blue from the quantity of blood contained in them. We found this fact less palpably shown in frogs," etc. "But in the mammalian subjects the emptiness of the *aorta and its chief branches*, the smallness and paleness of the *iliac arteries* contrasted with the corresponding dark and swollen veins," etc. (italics the present writer's). From this quotation it is apparent that Dr. Poole has confined his observations to the condition of the *great vessels* ("aorta and its chief branches," "iliac arteries"). Now, these large vessels, it is well known, are virtually elastic tubes with no contractile power whatever. Muscular cells are entirely absent in the aorta near the heart (Eberth, in Stricker's Manual of Histology, Wm. Wood & Co.'s translation, 1872, page 196), and insignificant in number in the other great arterial trunks. Consequently the paleness and "contraction" (i. e., retraction) of these vessels are not *considered in themselves* an index of vascular contraction or relaxation. They are simply distended or relaxed, like so much rubber tubing, according as there is or is not a distending force applied to them.

The contractile fibres are to be found in considerable numbers only in the smaller arteries and arterioles, and here it is—not in the large vessels at all—that we should look for the effect of nerve-action on the vessels.

If the small arteries and arterioles were paralyzed, it is perfectly obvious that the passage of the blood through them into the veins would be easier than if they were strongly contracted. If, then, the left heart and arteries are, in reality, as we suppose is generally assumed, emptied by the final contraction of the heart, and in the case of the great vessels the final

retraction of their elastic walls, what we would expect to find in cases of vaso-motor paralysis and consequent relaxation of the contractile arteries, is exactly what Dr. Poole *did* find, only, if possible, more pronounced. The obstructions to the performance of this final contraction and retraction being more than ordinarily small, the work would be performed, if possible, with more than ordinary completeness. If the small arteries had *contracted*, as Dr. Poole has assumed, the blood would have been dammed back in the great vessels and heart; obviously quite a different condition of affairs would rationally, in accordance with the above-mentioned theory, be expected, *i. e., engorgement of these viscera with the dammed back blood.*

It is not apparent, however, from Dr. Poole's paper, that the great vessels were, in his experiments, found to be any smaller or paler than they would have been in death from any other cause. The supposition that the left heart and arteries are emptied at death by the final contraction of the heart, the final retraction of the elastic vessels, and a final contraction of the muscular arteries, has always seemed to us very unsatisfactory. That the left ventricle can empty itself by its final contraction is perfectly conceivable. That elastic tubes which have only a retractile power, and which cannot reduce their lumen below a certain fixed diameter can empty themselves is perfectly inconceivable. That the small arteries, being provided with organic muscular fibres, may possibly reduce their lumen to zero by the gradual contraction, characteristic of that variety of muscular fibre, may be possible for anything the writer knows to the contrary. Some force, other than any which this supposition supplies, is very obviously necessary to explain the emptying of the great non-contractile vessels. This force has been supposed to exist in a *suction* exercised by the right heart and muscular arteries. How a soft, flabby, muscular bag is to actively dilate and produce any such effect we cannot conceive. How hollow muscular cylinders by slowly reducing their calibre to zero, even supposing that a vermicular motion like that which the intestines undergo, can produce any such effect, is equally incomprehensible. The only available hypothesis remaining seems to us the theory advanced by Prof. W. H. Draper in his "Human Physiology" (1856, page 130, etc.), that "capillary attraction" is a force in the circulation.

Dr. Draper points out the fact that in plants we have circulation without any organ of propulsion (heart). The agent which induces this circulation is probably the affinity of the vegetable cells for the nutriment contained in the sap. When the sap reaches the leaf it undergoes chemical changes which, together with the loss of substances given out to the cells, destroys this affinity or attraction. The cells then attract the fresh sap below that whose virtues are exhausted, so that this fresh supply is drawn upward and the effete and used-up sap is displaced. Similarly, Dr. Draper argues, an attraction may exist between the arterial blood and the tissues which need the oxygen and other nutriment which the blood brings to them. This nutriment once delivered, and the excrementitious matter (carbonic acid and possibly other effete material) having been substituted in its place, this attraction may cease and the blood become venous, may be hurried on by that which is coming behind and which is being drawn toward the tissues by the attraction existing between it and them.

It may be true that this force is too insignificant to be of moment during life when the heart is in full vigor. But may it not be by this force, this "capil-

lary attraction" so called, that, just after the cessation of the heart-beat, the blood is drawn, very gradually perhaps, from the arteries and heaped up in the veins! That this process is, as a matter of observation, slow, would be inferred from the following quotation from Dr. W. B. Carpenter's "Principles of Physiology," 5th Am. Ed., p. 334 (alluded to by Dr. Poole in another connection): "The contraction of the arterial tubes" (*i. e., just after death*), "is so great as to produce for the time a great diminution in their calibre, and this, doubtless, contributes to the passage of the blood from the arteries into the venous system, which almost invariably takes place within a few hours after death" (*italics ours*). Dr. Poole, we would remark parenthetically, refers to this sentence as "a further proof" of his theory. It seems to us hardly justifiable to assume an identity between this post-mortem phenomenon and vital contraction. The rigidity of the *voluntary* muscles after death, which is one and the same process as the "contraction" of the *involuntary* muscular coats of the arteries after death, is very unlike the contraction of these muscles during life. One might just as rationally call rigor mortis and tetanus one and the same thing.

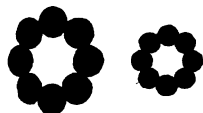
It may be objected that the supposition of "capillary" attraction or *tissue* attraction as a force in the circulation of the blood, is somewhat transcendental and not proven. It is at least supported by strong analogy, accords perfectly with all observed facts as far as the writer knows them, and is far less objectionable, it seems to us, than to suppose that the last feeble throbb of a dying heart, and the retraction of a system of elastic tubes following this last puny effort, aided by a slow contraction of the muscular arteries, are capable of driving several ounces of blood through and out of this same system of elastic tubes into the veins, especially as this slow contraction of the muscular arteries, unless, indeed, a vermicular motion similar to that in the intestines is assumed to take place, must, in driving the blood out of the contracting vessels, force it backward into the great vessels as well as forward into the capillaries and veins, there being no provision in their anatomical structure against regurgitation.

Some light on this subject from the physiologists is desirable.

Dr. Poole thinks it "absurd" to believe that "a little brandy," a "stimulant" which "produces flushing of the face" can produce "paralysis" of anything. Now, any organ is increased in functional activity by having sent or admitted to it an increased supply of arterial blood, if we rightly recall prevailing theory on the subject. If nature chooses to accomplish this by causing relaxation of certain muscular fibres in the walls of certain arteries, we can see no intrinsic absurdity in the process, any more than we can in the relaxation of the vesical and anal sphincters during the active physiological processes of urination and defecation. Relaxation of a muscle is not necessarily paralysis. The term *paralysis* implies a more or less permanent lesion of a nerve-centre (which interferes with the generation of nerve-force, or with the perception of an irritation transmitted from the periphery to the nerve-centre) or of a nerve-trunk or nerve-periphery (which interferes with the transmission of nerve-force to the tissue-elements to be acted on), or with the conduction of an irritation from the periphery to the nerve-centre. The general relaxation of the voluntary muscular system of a healthy man during profound sleep is *not* general paralysis. The condition of the muscular arteries in the face of a man flushed by brandy is more properly spoken of as relaxation rather than as paralysis.

That Dr. Poole may be correct in his belief that muscular contractility is inherent in muscular fibre, and independent of nerve influence, seems probable enough, and the supposition is one which, as he intimates, is not original with himself.

How soft, hollow muscular cylinders can actively dilate themselves, is a mechanical problem which must be worked out by its originators before they can reasonably insist on its acceptance as a fact by others. It has been explained, we are aware, by the fact that the longitudinal muscular fibres contract, and as a result of contraction become shorter and increased in diameter. As a result of this increase in diameter, they are said to shoulder each other away from the centre of the tube (see figures), and so increase its lumen. In the gross caricature which we have



drawn, this may seem plausible enough. A single glance at a microscopic section of a real artery will demonstrate the feebleness, to say the least of it, of his hypothesis; yet it is the only one, as far as we know, which has been advanced on the subject.

It seems most plausible to us to assume that muscular fibre does possess an inherent power of contractility independent of nerve-action, and that nerve-force acts merely as an excitator or inhibitor of this inherent power. This we suppose to be the generally received theory. Very truly yours,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH STREET, Sept. 19, 1879.

COMPOUND GELATINE MEDICATED TENTS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Every practitioner must at times have desired to treat diseased mucous surfaces by a method less abrupt and less transient than the application of medicated solutions, by syringe, or spray, or sponge.

This feeling induced me in the course of the last winter to employ gelatine as a vehicle which, by slow solution in the natural fluids, should give a continuous supply of the agent employed to treat the morbid conditions.

The first product of this effort, though very crude in form, showed that the idea was valuable, and through the very careful and prolonged studies of Mr. Otto Boetcher, of the firm of Spangenburg & Boetcher, the profession now may have the opportunity of determining the range of its useful application.

Mr. B. will furnish them with tents or bougies, medicated to their taste; the methods by which he has reached the present perfection of product not being known to me.

These bougies are of the size of a rye straw—6 to 8 mm.—are smooth of surface, and dissolve in the mucous channels in from one-half to two hours, leaving nothing but fluid bearing the medicament employed.

They are, when kept in glass vials, as pliable and smooth as a French urethral bougie; but if exposed to ordinary dry air become as rigid as whalebone rods in an hour or two. If then returned to the bottle they become soft again.

I have employed them, *first*, in the nasal cavities, being able thus to direct the application much more accurately to a limited area than by injection or spray; *second* (and it is for this purpose that they will be found most valuable), in the cervical canal and in the

cavity of the corpus uteri; *third*, in the female urethra; *fourth*, in the rectum.

Those which I first used in the nasal passages were medicated with sulphate of zinc and tannin and carbolic acid.

The uterine tents are for the most part medicated with iodine or iodoform. Those of iodine contain 6 per cent. by weight of the pure crystal of iodine. Those of iodoform contain 25 per cent. by weight.

I have found no method of treating the endometrium with these substances so safe, so easy, so painless, and so efficient as this. The tent, two to two and a half inches in length, is taken in a pair of uterine forceps, dipped for a moment in water, and then pushed through a speculum into the os uteri. Its surface is so well lubricated, and it is so pliable and yet so firm, that it will be readily pushed on to the fundus uteri, and may be left there to dissolve *in situ*.

This I constantly do, and think I have cured catarrhs thereby in less time, and much more thoroughly, than by the cotton-wrapped application.

The gynecologist will ask: Do you not have uterine colic sometimes? I have not had a case in which the patient complained of any discomfort from the placing of the tent or afterward. They do complain that iodoform makes them disagreeable and unfragrant, but that is all so far as I know.

Dr. H. T. Hanks, who has made large use of them, tells me that he has had some colic in two cases out of several score.

Iodine and nitric acid, as applications to the endometrium, have, in both English and American practice, nearly superseded all other agents. Their great value is endorsed by almost every gynecologist. To them, and through the convenience of this method, iodoform will be added.

The iodoform tent has been most largely used by Dr. Hanks; the iodine by myself, for chronic endometritis, endometritis, salpingitis, erosions, hemorrhages, hyperplasias, etc.

Aside from these, Mr. Boetcher has prepared tannin, tannin and iodoform, tannin and zinc, and various other tents, and will prepare any which he may be desired to supply, on short notice.

W. M. CHAMBERLAIN, M.D.

68 WEST FORTIETH STREET, Sept. 22, 1879.

Obituary.

SETH WESTON WILLIAMS, A.B., M.D.,

NEW YORK.

DR. SETH W. WILLIAMS, son of the Hon. Chas. Williams, of Nashua, N. H., died after an illness of one week, on the morning of September 20th, at the Preble House, in Portland, Maine, of softening of the brain. The disease, as the autopsy showed, was limited to the right lobe of the cerebellum and corresponding side of the fornix.

When taken sick, Dr. W. was away from home spending his vacation at the seaside, and not until a day or two after the commencement of his illness did he recover consciousness sufficiently to make known his name or residence. Throughout the remainder of the sickness, however, he retained his mental faculties, and, although surrounded by the ablest physicians of New York and Portland, kept prescribing for himself and making frequent diagnoses of his condition.

The deceased was a graduate of the Nashua High School and of Phillips Academy, Andover. He en-

tered Yale in 1868, and, after remaining, on account of feeble health, one year away from college, received the degree of Bachelor of Arts. After graduation, Dr. W. travelled for several months in Europe and the Holy Land. On his return to America he began the study of medicine in the office of Dr. Jas. R. Wood, of New York, and received in the spring of 1876, from the Bellevue Hospital Medical College, the degree of Doctor of Medicine and the Flint prize for excellency in physiology. The same year he went abroad a second time, and, under the direction of Prof. Salsbach, of Heidelberg, pursued a course of study in the German classics. In the fall of 1876 Dr. W. became interested in the study of pathological anatomy, which he pursued as a student of Prof. Virchow till the following year, when he returned to Heidelberg, to begin a course of special work with the microscope in the laboratory of Prof. Arnold.

After having acquired the knowledge for which he visited Europe, Dr. Williams returned to New York, and was admitted to Bellevue Hospital. He was assigned to the Third Medical Division, and would have been the house-physician of that institution after the first of October of this year. While performing his many and varied duties at the hospital he found time to prepare a most elaborate and exhaustive article on the "Etiology and Pathology of Pott's Disease," which was presented to the Faculty of the Bellevue Hospital Medical College, and was awarded the Sayre prize of \$200 for originality of research and clearness of thought.

The funeral services were held at the residence of his father, ex-Mayor Williams, at which the attendance of relatives and friends was very large.

Purity of thought and of action were the silent forces that drew about him a large number of friends. He endeavored to make his life one of usefulness, and seriously entertained the idea of becoming a missionary physician under the auspices of the American Board of Commissioners of Foreign Missions. An abiding faith in God and conscientiousness in the discharge of every duty, were the distinguishing traits of his character.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Sept. 21st to 27th, 1879.

WEBSTER, W., Major and Surgeon. Relieved from duty at Fort Warren, Mass., and assigned to duty as Post Surgeon at Fort Preble, Me. S. O. 167, Dept. of the East, Sept. 22, 1879.

FORWOOD, WM. H., Major and Surgeon. The leave of absence granted him from Headquarters, Dept. of the South, extended two months. S. O. 218, A. G. O., Sept. 20, 1879.

BREWER, J. W., Capt. and Asst.-Surgeon. Granted leave of absence for six months on surgeon's certificate of disability. S. O. 219, A. G. O., Sept. 23, 1879.

TREMAINE, W. S., Capt. and Asst.-Surgeon. So much of Par. 3, S. O. 195, Aug. 25, 1879, from A. G. O., as relates to him, is revoked. S. O. 220, A. G. O., Sept. 23, 1879.

KIMBALL, J. P., Capt. and Asst.-Surgeon. Having reported in person at these headquarters, assigned to duty at Ft. Sanders, Wyo. Ter. S. O. 82, Dept. of the Platte, Sept. 20, 1879.

TAYLOR, B. D., First Lieut. and Asst.-Surgeon. Granted leave of absence for three months, with permission to apply for an extension of one month. S. O. 222, A. G. O., Sept. 25, 1879.

List of Changes in the Medical Corps of the Navy for the week ending September 19, 1879.

September 15th.—Pd. Asst. Surgeon A. A. AUSTIN, detached from the Colorado and ordered to Navy Yard, Norfolk, vice Assistant Surgeon H. T. PERCY, detached and ordered to Coast Survey duty.

September 16th.—Pd. Asst. Surgeon F. ANDERSON, leave extended six months.

September 18th.—Surgeon J. W. COLES, ordered to hold himself in readiness for duty on U. S. S. Nipic.

Surgeon G. F. WINSLOW, detached from the Wachusett, and to hold himself in readiness for duty on U. S. S. Vandalia.

Surgeon J. B. PARKER, detached from special duty and ordered to the Wachusett.

Asst. Surgeon Charles W. RUSH, detached from Naval Hospital, New York, and ordered to the Receiving Ship Colorado, New York.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 27, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 20, 1879.	0	8	41	1	88	13	0	0
Sept. 27, 1879.	0	31	31	3	18	35	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from September 24th to September 30th, inclusive, was 84, and the number of deaths that occurred was 43. The total number of new cases for this year to October 1st is 1851, and the total number of deaths 451.

THE UNIVERSITY MEDICAL COLLEGE.—The introductory lecture of the regular winter course for 1879-80, was delivered on Tuesday evening, September 30th, at 8 o'clock, by Prof. John C. Draper, M.D. LL.D. Subject, "Medical Education."

THE COLLEGE OF PHYSICIANS AND SURGEONS.—The opening exercises of the seventy-third regular winter session of this institution took place on Wednesday evening, October 1st, at 8 o'clock. The introductory address was delivered by Prof. Henry B. Sands, M.D.

COLUMBIA VETERINARY COLLEGE.—The opening exercises of the second regular winter session took place on Wednesday evening, October 1st, at 8 o'clock. The introductory address was delivered by Prof. Thos H. Hawkins, M.D., V. S.

THE BELLEVUE HOSPITAL MEDICAL COLLEGE.—The exercises at the opening of the regular course of lectures were held on Wednesday evening, October 1st at 8 o'clock. An address was delivered by Prof. Austin Flint, and was followed by remarks by Prof. James R. Wood, Emeritus Professor of Surgery, and by Dr. Thomas H. Burchard, of the Alumni Association.

THE American Journal of Electrology and Neurology says that "in May last the New York County Medical Society admitted to membership a graduate of the New York Homœopathic Medical College."

Original Lectures.

THE PRESENT STATE OF THERAPEUTICS.

AN ADDRESS

DELIVERED AT THE OPENING OF THE FIFTY-SIXTH COURSE
OF LECTURES IN JEFFERSON MEDICAL SCHOOL.

By ROBERTS BARTHOLOW, M.D., LL.D.,

PROFESSOR OF MATERIA MEDICA AND GENERAL THERAPEUTICS.

(Reported for THE MEDICAL RECORD.)

I HEARD, but a few years ago, a very able teacher, himself a Professor of Practice, declare that if the four great chairs of Anatomy, Surgery, Practice of Medicine, and Obstetrics were well filled in a medical school, it was of little consequence who occupied the others; and as for *Materia Medica* and Therapeutics, any old woman could teach that. His was the traditional old woman who knew how to prepare catnip, tansy, and similar teas, and on special occasions could administer castor oil—an amount of therapeutical knowledge sufficient now for the leaders of French medical practice, if we may credit some recent reports from Paris.

Scientific physicians have usually held therapeutics in small esteem, doubtless because it had small deservings. In Bichat's time it was a feeling of contempt, which found expression in his famous declaration: "*Materia Medica* is a shapeless mass of inexact ideas, of observations often puerile, of imaginary remedies, strangely conceived and fantastically arranged." No one possessed of any knowledge of the subject, could now, on examination of the therapeutics of that day, deny the justice of Bichat's denunciation. It was an incongruous mixture of empirical notions, based on the crude theories of various medical philosophies—partly humoralist, partly solidist, partly of the Italian contra-stimulant school. It embraced the mechanical and chemical theories of the great Boerhaave, the vitalistic mysticism and the expectant practice of Stahl, and the solidist theories of Hoffmann. The whole mass was hardly in advance of that condition of therapeutics against which were levelled the shafts of Montaigne, the jests of Molière, and the morbid fancies of Rousseau. In fact, it was not until the birth of modern physiology that scientific therapeutics became possible, and that epoch was at a period within the memory of men now living. It may seem almost incredible, but it is true, that any considerable body of scientific facts in therapeutics has been the product of the last twenty years—for scientific therapeutics must always follow the course of discovery in physiology. Even now, there must necessarily be two methods pursued in advancing the knowledge of therapeutics: the empirical or rational, and the physiological or scientific. The empirical method is based on the principle, as ancient as our art, that a remedy which has cured a case of disease must also cure analogous cases. The scientific method is the application of physiological research to ascertain the actions of medicines, and on this sure basis is predicated the use of remedies in the treatment of disease.

The inherent difficulties of the subject, it must be admitted, are in large part responsible for its tardy development. In part its slow progress is due to an unreasoning conservatism, which admits of but one

road to the acquisition of truth. Even now there are many so-called practical men who are disposed to sneer at physiological therapeutics, and to make themselves unhappy over achievements which experience can utilize, but has had no agency in accomplishing. They should reconcile themselves to the inevitable by the philosophy of the old Spanish proverb: *Let the miracle be done, though Mahomet do it.* They should be satisfied with the progress of truth, though they may not approve of the means by which that progress has been achieved.

But the most vehement reactionists are yielding to the force of therapeutical discovery accomplished by physiological methods.

Thus, one of the most eminent therapeutical authorities of our day has declared in a preface written so recently as October, 1874: "In the first edition of this work the author contended against the mischievous error of seeking to deduce the therapeutical uses of medicines from their physiological action. Continued study, observation, and reflection have tended to strengthen his convictions upon this subject, and to confirm him in the faith that clinical experience is the only true and safe test of the virtues of medicines." The same author, in another work on the same subject, after another five years of study, observation, and reflection, says, in a preface dated 1879: "Whenever it seemed possible, an attempt to apply the results of physiological experiment to therapeutical uses has been made; for although the two fields of inquiry may not be so organically connected as to render the former a guide to the latter, it is, nevertheless, true that a scientific explanation of the curative powers of medicines must be sought in the results of their experimental operation upon the animal functions."

No revolution of opinion could be more complete; no renunciation of heresy more absolute. In 1874 empiricism is the true guide, in 1879 physiological experiment. This, though somewhat sudden, is significant of a change which is taking place in the last strongholds of empiricism. Such a quotation must satisfy the doubts of all—and they are legion—who respect authority and are governed by its utterances.

I hope I shall not be misunderstood. Far be it from me to abate one iota of the just fame of the author whose works I have quoted, or to impute inconsistency in his opinions, or to cast doubts on the accuracy of his judgments. I quote his words to demonstrate the revolution which has taken place by the application of the modern, scientific methods, with results so convincing, that the deepest convictions from wide learning and extended experience are made to yield. Honor and praise rather to the honesty of him who can surrender his own cherished convictions rather than do violence to truth.

Revolutions do not go backward, and they are apt to be radical in medicine. Furthermore, it is surprising to what extent fashion rules current medical opinion and modes of practice. Do the leaders in medical thought take a certain direction, their followers pursue pell-mell. This is observable now in the revolution which has taken place with respect to empiricism in therapeutics, and in certain quarters there exists a disposition to ignore all that has been accomplished by it, and to rely exclusively on the physiological method. This extreme tendency ought to be resisted in so far as there is danger of putting aside some of our most valuable acquisitions. It is far wiser to possess us of every aid which either method can offer—to accept the scientific facts which an exact physiological research can contribute, and to retain and extend that knowledge, the truth of

which has been confirmed by the experience of generations of accurate observers. In fact, when we come to investigate the subject we find that the physiological method is not free from sources of fallacy, from contradictory observations, from conclusions that subsequent investigations show to be erroneous. I freely admit that it is less hampered and overgrown by errors and contradictions than is the empirical method, but there are uncertainties and confusion which ought, if possible, to be eliminated. The first step necessary is to have a clear conception of the sources of error, and I think we may spend a part of this hour very profitably in an attempt to measure them. The important question is: What are the difficulties in the way of right conclusions respecting the actions and uses of our remedies, especially their value in the treatment of disease?

We may certainly place foremost the imperfections of man—the limitation of our faculties. Then comes the absence of the necessary training, or its insufficiency, and the utter lack of power of logical analysis in many of those who occupy the position of authorities. These mental defects and faults of training can never be overcome. "In the conduct of life," says Mr. Mill, "wrong inferences and incorrect interpretations of experience, unless after much culture of the thinking faculty, are absolutely inevitable; and with most people, after the highest degree of culture they ever attain, such erroneous inferences are as frequent, if not more frequent, than are correct inferences correct interpretations of experience." Such being the case, it is not surprising that in a matter so beset with fallacies as the estimation of the curative power of a remedy, that there must be few qualified by natural powers, and by training for the task. The best equipped and most carefully trained intellect may not possess the power of observation; it may be unerring in the conclusions formed from the facts submitted, but the faculty of discernment, of seeing things as they exist may be deficient or inaccurate. That which Mr. Mill calls "mal observation," consists in "something that is not simply unseen, but seen wrong." With the best intentions, the purest conscientiousness, men making observations—trained observers—differ surprisingly in their accounts of events occurring on a particular occasion. A capital illustration of this fact has been afforded by the discrepant accounts from the observers of the corona and the solar protuberances. Observed with the same instruments under the same conditions, the various operators have differed widely, with the usual result of heated controversy. An ingenious theorizer has shown that the difference lay in the eyes of the observers: some were normal—some were astigmatic, myopic, etc. As in Turner's pictures, the artist's oddities appeared when he had lost somewhat his appreciation of the harmony of colors. Not long since Klein saw, in investigating the changes in typhoid, a minute organism which seemed to have an important relation to the genesis of this disease, and there was much enthusiasm expended over the discovery, but in a few months a terrible iconoclast disposed of the discovery at one blow, by showing that the supposed organism was nothing more than a bit of albumen, altered by the reagents used in making the preparation. How much easier to form accurate conceptions, and give correct descriptions of things submitted to the evidence of our senses, than the phenomena arising from occult processes in the human body. Unfortunately, many of those occupying the position of authorities, always discern that which their preconceived opinions led them to search for; other observ-

ers look at facts with vision tinted by what Mr. Spencer calls the "professional bias;" in a variety of ways, the thing is not simply unseen, but seen wrong. The salutary lesson which we learn from this is: we cannot be sure that the things which we suppose we see are actually before us, and the other and higher lesson of patient waiting and study of our supposed facts, and comparison of them with the facts of other observers.

If we observe correctly as to the range of utility of a medicine, we may fall into error in its use by ignorance of the natural behavior of the disease in which it is exhibited. Before any exact knowledge was possessed of the natural history of diseases, it was simply impossible to be accurate in respect to the influence of medicines over them. Before it was known that a crisis occurs in pneumonia somewhere from the fifth to the eleventh day, endless were the controversies as to the influence of remedies in bringing this crisis about. How valueless became all those discussions, carried on with such earnestness and heat, when the natural history of pneumonia was made out, and it was discovered that medicines had never produced the crisis, which is an entirely natural process. Most important additions have been made to the natural history of diseases within a few years past, and we have now a sure point of departure for the investigations of the future. I affirm this, notwithstanding the pessimistic declaration of Dr. Andrew Clark, made before the medical section of the British Medical Association at their last meeting at Cork. He declares that "of the natural history of most chronic diseases—of their course from first to last; of the modes in which the organism, uninfluenced by drugs, and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issues either in recovery or in death—we know almost nothing, and certainly not enough for the commonest purposes of therapeutic art." The wholesale iconoclasm of this address is everywhere remarkable, but in nothing has his zeal so outrun his discretion, as in these statements. I need mention but two classes of chronic diseases to demonstrate the error of his statements—the chronic cardiac and renal affections—in regard to which we know their course from first to last, and how the organism, uninfluenced by drugs and favored only by the conditions of health, deals with these maladies in their origin, in their modes of progression, in their influence upon other parts, and in their issue either in recovery or in death.

It may seem a comparatively easy task to determine how far the mind influences the bodily functions in modifying the phenomena of disease, but it is extremely difficult to measure the operations of a force whose nature and source are unknown, and whose powers are exercised capriciously, and without the reign of law. A curious and most interesting book, compiled by Dr. Tuke, has lately been published, in which are brought together more thoroughly than ever before the facts scattered through medical literature, illustrating the influence of mental states on bodily functions. No one can peruse this book without being strongly impressed with the uncertainty which must attend our estimate of the influence of remedies in all of those conditions of disease over which a peculiar mental force may exert a far greater curative power. Everybody has been more or less familiar with the well-attested facts which have existed on this point, but when they are brought together, analyzed, and their lesson comprehended,

we are simply amazed to find that many morbid states, which medicines had failed even to modify, are removed or cured by a force emanating from the mind. If this mysterious force moves, how impossible to form a correct judgment of the share which a medicine or a plan of treatment had in the result.

When Sir Humphry Davy, then a young man unknown to fame, was employed by Dr. Beddoes to make observations with nitrous oxide, among the patients who presented themselves for treatment was a paralytic. Before commencing the inhalation of gas, Davy inserted a thermometer under the patient's tongue to ascertain the influence of the gas on the temperature of the body. The patient was greatly impressed with the mysterious little instrument, and declared, with much enthusiasm, that he felt the influence pervading his entire frame, and was already much relieved. Davy, observing the remarkable influence of hope and expectancy, did nothing more than gravely insert the thermometer day by day with surprising results, for in a short time a complete cure was effected. If Davy had administered the nitrous oxide, the case would have appeared in medical annals as a cure of paralysis by the gas.

When a *religieuse*, in Cincinnati, with prayer and fasting, and after a solemn service in which all of her sisterhood participated, threw herself at the foot of the altar and would not rise until healed—behold! an ulcer of the leg, resisting all other means of treatment—was cured by some drops of water, coming from the far-off, mysterious and sacred spring of Our Lady of Lourdes. In the one case it was a mere impression on the mind without the element of religious faith—a mere dependence on the efficacy of dumb glass; in the other a profound religious sentiment, than which nothing more powerful can sway the human heart—and yet the result is the same.

When we come to analyze the examples of diseases cured by powerful impressions, emotions, faith, hope, expectant attention—whatever the nature of the mysterious force—we find that the cases can be referred to one of two classes: to functional morbid states of the nervous system, or to alterations of structures—organic changes they are called—brought about through the agency of the trophic nervous system. Everybody is familiar with the plentiful examples of the first group, and the second needs no explanation to Philadelphia physicians—for in this city work has been done that has materially advanced the knowledge of the subject. In these two large and important groups of diseases, so much does the cure depend on merely psychical impressions, that it is difficult—often quite impossible—to determine how far the mental state, how far the remedies employed, contributed to the result. The practitioners of that medical jugglery who cure diseases by prayer and the imposition of hands, or by the gifts of the natural healer, understand full well the form of malady suitable for their powers. There is now in the State of Massachusetts, a preacher-doctor who cures by prayer and the imposition of hands—the apostolic method—and therefore denies to his grateful patients the privilege of recompensing him except by voluntary gifts. The pecuniary outcome of his benevolence is something remarkable, for he has now built up around him on his domain of several hundred acres, a number of stately dwellings for the reception and care of the thousands going to him from all parts of the United States. A patient of mine—a genuine Christian and a woman of the highest excellence, though somewhat credulous and a little superstitious—having heard of the wonderful cures wrought by this Massachusetts apostle, re-

sorted to him. I had from her own lips the story of her experience. She told the great man that she was a firm believer in the efficacy of prayer, having met with many examples, and that she had come all the way from Ohio to be cured of an organic affection of the heart. When the doctor-preacher heard the nature of the malady he made a reply, in which, astonishing as it may seem, she saw no incongruity. He said: "My experience is, that the Lord rarely, if ever, interferes to cure organic disease of the heart." Nevertheless, he expressed a willingness to try, as she had come so far, and, with hands on hers, he did pray fervently, in which she joined as fervently, for half an hour at a time on three days; but my patient experienced no relief, and came home the worse for the moral struggle which she had undergone. My client, as did all who came, it is probable, left a considerable fee in the form of a gift, and was not cured of her delusion, for she heard of numerous miracles that had been wrought there, and she witnessed on all sides the evidences of worldly prosperity; and she may have inspected, for aught I know, the arsenal of crutches, canes, and ear-trumpets which these artists exhibit in proof and confirmation of their powers.

When anæsthesia by the inhalation of ether was demonstrating in the Massachusetts General Hospital, Dr. Eliottson, of London, was engaged in a far more wonderful work, teaching the great lesson, that in a mesmeric sleep surgical operations can be performed without consciousness of pain. So zealously and completely, although in the face of much obloquy, had Eliottson succeeded in convincing sceptical and conservative London of the genuineness of his work, that the discovery of the production of anæsthesia by the inhalation of ether was announced in the *Medical Gazette* under the heading, "Animal Magnetism Superseded." Up to this time the capital operations in surgery were almost daily performed in London whilst the patients were unconscious in the so-called mesmeric sleep. Although Eliottson misinterpreted the phenomena which he observed, and became involved hopelessly in the absurdities and mysticism of Mesmer, he was nevertheless engaged in the demonstration of important truths. If time would allow, I might enter more fully into that remarkable state in which there is a suspension of the methods of consciousness, and show, indeed, that the recent observations of Czermak and others on animals, is an experimental induction of the same state. It seems, indeed, that the condition of the brain in which a peculiar curative influence is exerted over morbid processes, is the opposite of that state in which the activity of the perceptive and volitional centres is in absolute suspension.

Closely allied to this subject are the remarkable phenomena of Burqism, or metallotherapy, which at first excited the ridicule of the scientific, but which seem now likely to contribute to our knowledge of this outlying department of mental and nervous processes. The results obtained by Burq, and especially by Charcot, are such as to merit the close attention of therapeutical investigators, and must, if confirmed, enter into the question of the curative power possessed by certain remedies.

We constantly hear physicians complaining that the published results of others, in respect to the utility of a particular plan of treatment, cannot be realized in their own experiences; that, although Davy cured paralysis by the inhalation of nitrous oxide, they cannot succeed, although they have carefully observed all the conditions of the experiment. They entirely overlook the fundamental fact that one physician

summons to his aid the mysterious mental force in hope, faith, expectant attention; and another represses it, not consciously to himself, by a lack of personal enthusiasm, and still more by a lack of confidence in his own powers and in the power of his remedies—fatal defects in the character of the physician which will not escape the keen scrutiny of the anxious patient. I will not use the vulgar term "personal magnetism," for it has no meaning, and the power is not a magnetic quality or power—not a mysterious gift possessed by the chosen few. That which inspires a supreme, unquestioning, all-pervading belief in the efficacy of the means proposed, is a reflex of the confidence of the physician—not a boastful, self-asserting egotism, not the blind faith of ignorant credulity, but the well-founded convictions of the enlightened therapist, confident in his resources from long experience of their capabilities. "The Lord is on the side of the heaviest battalions," was a favorite saying of the great Napoleon. I hope I shall not be understood to speak in an irreverent spirit. My purpose is to illustrate the lesson, that "God operates, not by partial, but by general laws;" that He gives us the faculties to acquire and to apply knowledge in the treatment of disease; that He does not suspend the laws of nature for our benefit; and that those cures which seem miracles are entirely human and easily explicable.

We derive from the whole subject the important lesson that we have in a peculiar mental state or condition of the great nerve-centres an extraordinary curative power in a large group of diseases, and that in this fact lies one of the greatest sources of fallacy in estimating the value of remedies. Furthermore, it must be obvious that the physiological as well as the empirical method—that both methods are embarrassed by wrong inferences and incorrect interpretations of experience.

The progress of applied therapeutics is equally hindered by the sources of error which I have pointed out. The end to which all our studies are directed as practical physicians is the application of remedial agents to the cure of diseases. An unprejudiced thinker to whom the subject was mentioned would assert with confidence that gentlemen engaged in a pursuit requiring the use of certain agents to accomplish the desired results, would be most solicitous to inform themselves fully in respect to those agents. He would regard it as incredible that a considerable part of our profession are either indifferent or satisfied with vague notions, and that a still larger part fall into routine methods with a few agents which have to do duty for all possible conditions. This widespread inappreciation, indifference, or ignorance of the actions and uses of drugs is due partly to fashion, partly to the unpromising nature of the subject. Within a few years past a therapeutical nihilism has been the position occupied by many of the most influential leaders in modern medical thought. This movement is a result, in part, of the overshadowing importance of physiological and pathological studies. The founding of great laboratories and the brilliancy of discovery in these departments have attracted universal attention to those studies which have become the fashion. We see on every side the efforts put forth to give this direction to medical study and teaching. The desire of the time seems to be to make students, histologists, pathologists, microscopists, rather than sound practitioners, full of the humble but necessary knowledge of the practical departments of our art and science. I hold this to be a perversion of the duty of a medical school. Its first and

highest duty is to instruct students, not to pursue minute researches, but to become thoroughly accomplished physicians and surgeons. No fact is more evident than that the highest order of physicians and surgeons are not men remarkable for their knowledge of microscopy, of experimental physiology, and the other branches of theoretical medical science, and, conversely, that the microscopists and pure physiologists are not remarkable as physicians, and, indeed, cannot be. The attempt to pervert the proper purpose of medical schools, and to give a merely science aspect to medical teaching is a fashion of the time, which, if it gain more adherents, is likely to do serious mischief to the cause of medical education. For young men, allured by the glitter of scientific work, will neglect the important and really more difficult attainments of true professional studies.

It is a mere pseudo-science which is misleading so many that it has become commonplace to know something about drugs and to prescribe them; the new school of pathologists and physiologists look upon the whole business of medicine giving as unscientific, and therefore unworthy the attention of the higher order of medical thinkers. It is a very fascinating doctrine, that to be ignorant of drugs is to be regarded as superior to the commonplace—as being in the higher walks of medical life—and hence many make haste to adopt it, relying for the hereafter on mint-water in the treatment of rheumatism, and similar nihilistic absurdities. The great question of the time is, does it pay? Applying this utilitarian method to the subject, I answer, it does not pay to be ignorant of therapeutics, and I prove my position by some illustrative examples selected from those recently deceased, so as not to be accused of making invidious comparison. The most successful physicians Paris, Vienna, Berlin, London, Edinburgh have had for a generation, were Trousseau, Oppolzer, Traube, Todd, Begbie—all of whom were most careful students of therapeutics, have contributed to our knowledge of the subject, and were diligent prescribers of remedies. These great men were not only successful teachers and clinicians, but had great local renown as practitioners, and each had a large *clientèle*. I beg you will not, therefore, be misled by the depreciation of therapeutics by presumed medical scientists, who are not sufficiently scientific to feel their position assured, but must manifest their superiority by speaking contemptuously of the so-called practical branches. *Sum* is sometimes taken for *habeo*, is an eccentric rule of Latin grammar which is very applicable to the affairs of modern life, and may have been and doubtless was, strongly felt by the old Romans. To have is to be. Applying this rule to the utilitarian side of the question you may be well assured that *to have* a competent knowledge of therapeutics is *to be* a successful practitioner.

Many who have started out on a medical career with a competent knowledge of therapeutics have been disheartened by a failure to obtain the expected results. Failures of this kind arise from two causes: first, from an incorrect appreciation of what nature and art respectively accomplish; and second, from an inability to make a correct therapeutical diagnosis. The rage in our time is to make an accurate diagnosis of disease, and it is an enthusiasm to be encouraged, but there ought to be a corresponding desire to make an accurate therapeutical diagnosis—that is, to ascertain the remedy adapted to the form and character of the disease and the condition of the patient. Into this problem many complex questions enter, and he only can solve it correctly who has an intimate ac-

quaintance with the phenomena of disease, and with the whole range of rational and scientific therapeutics.

What art, what nature can accomplish, is a wide subject which I must merely mention. It is a singular fact that but few young physicians, comparatively, recognize the limits of remedial power. The result is that they may begin with a blind, unquestioning faith, but they end with an unreasoning scepticism.

Having now dwelt on the method and spirit in which therapeutics should be studied, as much as my time will allow, I must next say something of the manner in which it should be taught.

Confronted at the outset of his career with the subjects of materia medica, a student may well stand appalled. A subject which embraces the mineralogy, the chemistry, the botany, the pharmacology of several hundred articles belonging to the three great kingdoms of nature, would seem to require the undivided attention of a life given to the task. The student of medicine cannot become sufficiently well informed in these sciences to utilize them in the study of the materia medica, and at the same time devote sufficient attention to his strictly medical studies. The result is, he abandons an undertaking which seems to him hopeless, cuts the subject of materia medica, and contents himself with the fewest possible facts in therapeutics. He enters into practice with crude notions, and is given to a boundless credulity respecting the curative powers of drugs, or he cultivates a sceptical dilettanteism, or becomes a sceptic, affecting a patronizing forbearance for the weakness of those who have faith in remedies. The condition to which practitioners are now reduced in Paris is gravely stated in a letter which appears in a recent issue of the *Lancet*—so gravely that it can hardly be regarded as satirical: "No wonder therapeutic scepticism is now the rule with prescribers. Thanks to the enterprise of wholesale druggists, a host of *elegant* preparations are always at hand, which relieve the scientific *clinician* from the ridiculous absurdity of writing a useless formula. Now that diseases are allowed to run their normal course under the watchful eye of the medical naturalist, the exhibition of an inert, but *elegant* granule, must be considered a vast improvement upon the active interference of our physicking forefathers."

No wonder that, at a recent meeting (last month) of the Paris Academy of Medicine, there were loud demands for reform. No wonder that Dr. Andrew Clark, in that recent iconoclastic address from which I have just quoted, cries out that therapeutics, "the highest department of our art, and one of its chief ends, is in a backward and unsatisfactory condition." He attributes this unhappy state of things to several causes; but the first is, that materia medica, not therapeutics, is taught in the schools, and that there is "no physician of experience and authority who teaches the subject of therapeutics."

Where must the reformation begin? Obviously the reformation is demanded in the direction which I have indicated, and which Dr. Clark so vehemently emphasizes.

We must begin by stripping the materia medica of its useless knowledge. We must relegate to the botanist, to the chemist, to the pharmacist, the subject-matters belonging to them, and retain those things having connection with the study and work of the physician. I can best illustrate this by an example selected from the vegetable kingdom: let it be *nuxvomica*. We have first the names—botanical and chemical. Then follows the source and botanical description, which is Sanscrit to the average student,

and knowledge without any use to the practitioner as such. Next comes the pharmaceutical preparations, and a description of the mode of preparing the tincture and the extracts, and an elaborate account of the separation of the alkaloids—a complexus of chemical and pharmaceutical knowledge of great utility, indispensable, indeed, to the pharmacist, but useless to the physician, who is not engaged in the business of a manufacturing chemist, and who cannot acquire this knowledge unless at the expense of his proper professional education. The best students who make the attempt to master the details of materia medica, acquire but a vague notion of it, and drop the study as soon as possible, except the few who expect to combine the business of pharmacy with the practice of medicine—a union which always results unhappily, and is not to be approved.

Dr. Clark complains in his energetic way that our works in this department consist of materia medica teaching largely, whereas they ought to be devoted to therapeutics only. This is an extreme view to which I must decidedly express my dissent. There is certain knowledge of pharmacy and chemistry which is necessary to accurate prescribing, and which must be taught, if we would use our therapeutical knowledge intelligently. We must know the names of the drug, the forms and preparations in which they are compounded, the active constituents, the doses, the antidotes chemical and physiological, but especially must we have full and accurate information in regard of the effects of the remedies and their uses in the treatment of diseases. All of this knowledge is immediately applicable to the requirements of the physician, and no part of it can be omitted without injury. I hold that the actions and uses of remedies is the point on which the greatest stress should be laid, and no information, empirical or physiological, should be neglected. Let the student have the minutest information from all possible sources of the physiological powers and capabilities of a drug, its behavior as influenced by idiosyncrasy and dose, its applications in the treatment of disease, the fallacies which affect a proper estimate of its powers, the special conditions in which it is useful, why it should be preferred to another remedy of the same class, and in fact any information in regard to it which may facilitate the physician's use of his armamentarium. The artisan is taught the name of the tool, the range of its uses, the mode of handling it under special circumstances; but he is not expected to acquire the mineralogy of iron and the chemistry of steel—subjects concerned with its original construction.

The information which a teacher must convey to a class is derived from two sources: from a study of the authorities who have contributed to the subject; from his personal experiences and reflections. The literature from which he gleams is a wide field and contains a multitude of workers, who differ in capacity, in acquirements, in honesty. The instructor may pursue two methods in imparting his information: he may present in order, chronologically or by subjects, a synopsis of the contribution of each individual worker; he may subject the whole to a careful analysis, weigh the merits and truthfulness of individuals, and present the results in the plainest language. The former plan confuses the student with a multitude of names and opinions that vary and are often contradictory; the latter gives him some salient points on which he may lay hold. I maintain that the latter plan is the true one—that it is the duty of the instructor to analyze the complexus of facts and opinions—to guide the intelligence of the student through a

maze to right conclusions. Those who wish to engage in investigations on their account are either advanced students or graduates, who possess the knowledge necessary to find their way through the labyrinth.

I hold, further, that the instruction should be, as far as possible, objective or demonstrative. The lecturer may content himself with stating that drugs will produce certain results—that strychnia will cause tetanic spasms, and that conia will paralyze—and he may illustrate the action of strychnia by an exposition of some famous medico-legal case, as the poisoning of Cook by Palmer, and the action of conia by recounting from the *Phædro* of Plato the death of Socrates; or he may at the moment demonstrate the effects of the drug by an experiment which makes the fact memorable in the student's mental experiences. The chemist who merely tells his students that water is composed of oxygen and hydrogen, and does not demonstrate it by experiment, will hardly have done his duty. The experiment vivifies the bald fact, and the impression made is permanent. But how demonstrate your therapeutical facts? This brings me face to face with the great vivisection question. Though an advocate for rightly conducted vivisections, I protest against cruelty to animals, who are God's creatures. I protest against those barbaric sports in which more animals suffer yearly—hunted to death—than have in all time been under the knife of the vivisector. More than all, I protest against that inhumanity to man—the outcome of an unreflecting sentimentality—which prevents those scientific investigations having for their end incalculable benefits to man. Some of our most important remedies and physiological knowledge of the highest importance have been, and only could have been, obtained by experiments on animals. If animals are sacrificed for the support of men's bodies, why should they not contribute to the improvement of men's minds? Your sentimental philosopher does not reflect on the humanity of the butcher, except for the toughness of his matutinal steak. Not to occupy further time with well-known arguments in favor of vivisection, I hold that the actions of drugs should be illustrated as far as practicable by experiments on animals, but the experiments must be decorous, not revolting, not cruel, and made strictly to advance or to impart knowledge for the benefit of our fellow-man. In these experiments animals have small occasion to suffer, for the medicament or the anæsthetic so far obtund the sensibility of the centres of conscious impressions that pain is not felt.

Why torture dumb brutes by experiments, which after all cannot be utilized in the treatment of men's diseases; for has it not been shown that the actions on men and animals differ—that rabbits eat belladonna with impunity, and pigeons cannot be affected by opium? I might explain to you how idiosyncrasies exist in men and animals alike, and are usually more apparent than real; but let me answer your objections by a quotation from the most competent authority of modern times—Claude Bernard. He declares in that remarkable work—"Introduction to Experimental Medicine" (p. 218)—that "experiments on animals with deleterious and noxious substances are very useful, and perfectly conclusive for the hygiene and toxicology of man. The researches on medicaments or poisons are equally applicable to man from the therapeutical point of view, for the effects of these substances are the same in animals as in man, except the difference in degree." This opinion, based on the largest experience, and after a career of brilliant dis-

covery, might be illustrated and enforced, if I had the time, by the examples of benefits to the race obtained in this way.

The crusade against vivisection in England, which has attained extraordinary volume and force within a few years past, is an outgrowth of dog-worship, which has now become a form of religion in the upper classes of society. With hair perfumed, powdered, and curled, his canine worship sits at table with his mistress, rides in the park in the afternoon, sleeps on downy pillows at night; he has his maid to anticipate his wants, besides the undivided attention of his mistress, and when ill he is waited upon by a celebrated physician. He makes no return to society for the protection and benefits he receives; he pays no taxes; he merely barks and growls in return for the love of his mistress, and is altogether an ungrateful dog; but he has driven physiological research out of England, and the gentlemen who were engaged in an important series of investigations on the biliary secretion were compelled by him to go over to France. An epidemic of hydrophobia and the loss of several titled ladies will be necessary to prevent the apotheosis of the dog, and to put vivisection in its proper position—for a cure for hydrophobia can only be arrived at by experiments on this at present distinguished member of society.

Original Communications.

CASE OF COMPOUND DISLOCATION OF THE ANKLE-JOINT, WITH FRACTURE—RECOVERY.

By B. A. CLEMENTS, M.D.,

SURGEON AND BREVET LIEUT.-COLONEL U. S. ARMY.

THE best treatment of compound dislocations of the long bones, and particularly of the ankle-joint, would seem to be still not definitely determined, wide differences of opinion existing among eminent teachers up to the present time.

Professor Frank H. Hamilton, after discussing the subject with even more than his usual ability and discrimination, determines generally in favor of resection as compared with other modes of procedure, and attaches great value to the rest and relaxation of the muscles thus secured, as well as to the greater resulting mobility of the joint, remarking that "after resection I have thus far heard of no cases in which complete anchylosis resulted;" and he writes of the "great hazards" attending attempts to effect a cure by reduction without resection.

Mr. T. Holmes (System of Surgery, vol. i., p. 825), on the contrary, in stating the "general considerations" applicable to the treatment of these injuries, says, "that in joints of the lower extremity no bone should be removed unless absolutely necessary, and every attempt made, by enforcing strict rest and confined position, to induce anchylosis."

Billroth, in the fourth edition of his Surgical Pathology, remarks in regard to reduction alone, that "we may sometimes hope for a cure by suppuration, with a subsequent stiff joint; but, as experience shows, it is always a dangerous experiment," and he highly commends resection as compared with amputation, if the injury of the soft parts be not great; whilst in his more recent eighth edition he says, "less attempt is made than formerly to obtain movable false joints after resection, but more frequently we seek by partial

removal of the bones . . . to secure ankylosis of the joint."

Accepting these views as expressive of the current practice, it is thus seen that these eminent authorities are not wholly agreed as to the necessity of resection, nor as to the greater desirability of motion or ankylosis in the injured joint; and whilst it may not be possible to establish such general rules as shall be applicable to every particular case, it may be assumed that the question can be narrowed to the case of particular joints, and greater definiteness and certainty in treatment secured only by carefully recording in detail the results of clinical experience.

With this view I give the history of the following case, which was under my care, as an interesting contribution to the clinical history of compound dislocation of the ankle-joint:

Musician Adolf Bill, 14th U. S. Infantry, age 24, was caught under a falling bank of gravel and stones on October 11, 1878, near Fort Douglas, Utah. He was standing at the moment of the accident, and was almost entirely covered by the earth; his companions very speedily unearthed him, and I saw him within a half hour afterwards. His right foot was lying at right angles to his leg, and on removing him to the hospital it was found that, in addition to the injury of the ankle, he had an extensive lacerated wound of the scalp, with much extravasation of blood under the scalp, near the wound; the skull was bared but not fractured; blood ran from his nostrils and mouth, his forehead, face, and chest were much contused and swollen, and he was nearly insensible. His right knee was much swollen and contused, as well as the tissues over the upper half of the right tibia, though he complained more of pain in the left lumbar region, against which, it was learned, the handle of a spade he was using had been driven. The wound in the scalp was at once closed by silver sutures, and required no further care at any time. The accident occurred at 10 A.M., and he suffered the usual symptoms of shock for three hours and a half, but by three o'clock reaction had occurred, his skin became warm, and his pulse rose to 180°, and ether being administered, I proceeded, with the kind assistance of Dr. I. F. Hamilton, of Salt Lake City, to make careful examination of the injury to the ankle-joint.

The foot was completely turned up along the inner side of the leg, lying on its side, and the tibia and fibula both protruded outwards through a straight opening in the skin over the upper part of the outer malleolus; both bones were completely denuded, for the space of three inches, of all tissue save periosteum and some connective tissue, almost as neatly as if cleanly dissected; the fibula was not broken at the usual point above its malleolus, but the extremity of the latter was broken off, leaving a rough surface, and the tip of the inner malleolus and the anterior edges of the articulating surface of the tibia were crushed and ground off as if the bones had been driven and twisted into the gravel with great force, leaving all the rest of the articular cartilage intact. There were no fissures or other fracture of the bones of the joint, nor were there any signs of torn tendons, and the tibial arteries were intact and the foot warm.

I removed the roughened surfaces of the malleoli and anterior edges of the articulating surface of the tibia with bone forceps, and after cleansing the parts thoroughly with carbolic acid in solution (1 to 40), firm extension was made by Dr. Hamilton, and the bones restored to position through the wound in the skin over the site of the upper part of the outer malleolus, it being necessary in order to effect the return

of the bones through the constricting edges of the skin wound, to insert a spatula under the latter and forcibly raise and stretch them. It was then seen that this wound had plainly not been made from without, but evidently by the bones from within, there being no marks of contusion on the surface, and the edges being lacerated in slight degree, presenting the appearance of thick wet paper when it is torn: it was two and a half inches in length, and from behind forward in direction. The wound was again thoroughly syringed out with carbolic solution (1 to 40), and the edges, except at the lower angle, brought together with silver sutures. A long India-rubber drainage-tube was inserted into the joint through the lower angle, and its outer end into a bottle containing carbolic solution.

The wound was dressed by Lister's method, every detail of which was observed, except that the "protective" silk and the few instruments used were not dipped in carbolic solution. The limb was laid on a splint with a foot-rest. Morphine was given, and at 9 P.M. his pulse was 120, and temperature 98.7°.

It may be well to again observe here that but a small portion of the articular cartilage was removed, and that practically the removal of bone scarcely amounted to a resection.

The next morning, October 12th, his pulse was 104, temperature 100.9; he had slept at intervals during the night. Three measured ounces of bloody serum had been discharged into the bottle through the long drainage-tube. In the afternoon his pulse had risen to 180, he was very restless and semi-delirious, and the discharge from the tube had nearly ceased. At 8 P.M. carbolic solution was injected through the tube, and much bloody discharge forced into the dressings, which were then removed, as well as the tube itself, which was found to be perfectly pervious. The wound being further syringed out with carbolicized water, the tube was reinserted with difficulty, the open angle of the original wound being nearly two inches above the cavity of the joint, and Lister's dressing was applied in every detail, it being necessary to give chloroform during the time.

Oct. 13th.—The temperature this morning had risen to 103.6, and his pulse to 120; his tongue was dry, and he was very restless and talkative. There was no discharge from the tube, and it was seen that it had not been properly reinserted last night, and it was therefore wholly removed. By 8 P.M. his pulse fell to 100, and his temperature to 101.8. His bowels moved with relief to him, and his urine was drawn off by a catheter. The knee of the injured leg was hot, much swollen, and sensitive.

The following morning, October 14th, his pulse was 104, temperature, 103°. The dressings were saturated with bloody, dirty serum, which did not, however, smell badly; they were removed, and the joint found tumefied with dirty serum. It was thoroughly syringed out, the tube now reinserted accurately, and the antiseptic dressing renewed—all under chloroform.

The knee was still more swollen and tender, as well as the upper part of the leg. The speedy good effects of cleaning out the joint were manifested in the evening by his pulse falling to 100, and temperature to 100.8°. Up to 8 P.M. there had been 3 ij. of bloody serum discharged into the bottle through the tube. His tongue lost its dryness, and he slept fairly this night.

Oct. 15th.—Pulse, 100; temperature, 100.8°. No soiling of dressings, and no odor; the tube discharged into the bottle readily an ounce of reddish serum, and continued to do so without obstruction,

there being an additional ounce and a half in the vial at 8 P.M. The catheter was constantly necessary.

Oct. 16th.—At four o'clock this morning he became very restless, though at 8 A.M. his pulse was but 96. Temperature, 100.1°. $\frac{3}{4}$ i. of flaky serum had been discharged into the vial, it was for the first time untinged with blood. But by 10 A.M. he became delirious, and his temperature had risen to 103°. Fearing that the tube did not discharge all the fluid contents of the joint, I removed the dressing and found the joint full, but not distended, with thin ill-looking pus. Under chloroform the joint was thoroughly injected and cleansed out, the tube reinserted, and the Lister's dressings removed. Whiskey was given in milk; he continued mildly delirious, but by 9 P.M. his temperature had fallen half a degree, and the tube had discharged three drachms more of bloody pus. He slept pretty well under the use of whiskey and morphia during this night, and on the next day, Oct. 17th, his pulse at 8 A.M. was 100; temperature, 103°. A half ounce of thin pus had been discharged through the tube, and he was rational. Owing to the curved direction assumed by the tube in passing it into the joint through the original wound, it was evident that it could not freely discharge the pus now forming, and I consequently removed it and made a free incision into the joint some two inches lower down, releasing a spoonful of pure pus, and through it inserted well into the joint a drainage-tube made of an elastic catheter. His temperature fell a half degree by 9 P.M., and there was no evidence of discharge.

Oct. 18th.—Pulse, 104; temperature, 100.8°. Dressings were much soiled, and were renewed.

The following day, Oct. 19th, there was less discharge from the joint, but the knee and upper part of the leg were much swollen. On the 20th there was fluctuation along the tibia, and a free incision was made some four inches above the ankle, giving exit to $\frac{3}{4}$ iv. of normal pus.

Both by probing and injection it was determined that there was no communication between this suppurating surface just incised and the joint.

The following morning, Oct. 21st, the pulse had fallen to 84, and the temperature to 99.6°. The discharge of pus from the incision made yesterday was normal in appearance and quantity, and that from the joint more moderate; and though the temperature rose to 102.2° in the evening, the pulse was but 88. I applied a Smith's anterior wire splint to the leg, which gave him great comfort and enabled the dressings to be easily applied.

The foregoing details of this critical period of the case illustrate the now oft-told story of the necessity of securing a free discharge from wounded joints and the great and serious disturbance arising from even a few hours' retention of the fluids, and I will condense as far as may be possible the rest of the history.

He had early been put upon nutritious fluid diet; attention was given to securing a movement of the bowels, as much tympanites existed; he still complained most of pain in the lumbar region where the spade-handle had been forced against him, and it was necessary to use the catheter three to five times in the twenty-four hours.

On Oct. 22d the discharge from the joint was clear, yellow and gelatinous, and about $\frac{3}{4}$ i. in quantity in the twenty-four hours.

On Oct. 25th, in the evening, he had a spasm of the muscles of the face and arms, preceded by chilliness

and attended by faintness and feeble, rapid pulse, which passed away within an hour or so under the use of stimulants. He had another attack of this kind on the evening of the next day. The thumbs were turned in on the palms and pupils dilated, and he was unconscious. This was also preceded by chilliness, and the pulse soon rose to 120, and temperature to 103°. For this I gave a few drops of chloroform internally and an enema of oil and turpentine, and his bowels soon after freely moved, with great and speedy relief to all the symptoms. The high temperature was evanescent, having fallen almost to 100° by next morning, and an examination showed the wounds in proper condition, the discharge being only about two drachms a day, and thin and sticky. This spasm recurred on the evening of the 28th, and I gave a few drops of chloroform by inhalation, under which he soon regained consciousness. I concluded that these attacks were due to reflex irritation from the stomach, as he now ate very heartily, and greater care was taken in limiting the amount of his food.

On Oct. 30th he had a slight chill which was not followed by any unusual elevation of temperature, and again at noon on Nov. 2d, which raised the temperature to 104° at 2 P.M., and which were precursors of inflammation external to the joint; for, on the 5th, the inner side of the foot was red and swollen, which greatly increased, so that by the morning of Nov. 7th the foot was tense, red, and oedematous in every direction, whilst the discharge through the tube from the joint had almost entirely ceased, and the surfaces heretofore drained by it appeared to be nearly healed. It seemed clear that the inflammation was confined to the exterior of the joint. Under chloroform, I made this morning a deep incision on the inner side of the joint down to the bone itself and another on the outer side near the original wound, which had nearly healed, but no pus was discharged from either incision. In the afternoon the temperature rose to 102°, and fell one degree by 8 P.M., with pulse at 96. The following day the foot was still more swollen, there was no suppurating from any of the incisions, the temperature varied from 99° in the morning of this day to 102° on the evening of the 10th; but there was no escape of pus until the evening of the 12th, when reddish pus was discharged through the opening made over the tibia on October 20th.

On Nov. 14th a deep incision two inches in length was made down to the bone on the inner side of the foot, and free communication established with the incision over the tibia, discharging some $\frac{3}{4}$ iij. of ill-conditioned pus. A long probe, passed through the tube entirely across and through the joint, failed to communicate with the new incision; but when passed through the original wound and behind the tendo-Achillis it entered the suppurating surface on the inner side. It was conclusive that all this pus and inflammation was external to the joint, whose surfaces seemed apparently healed by granulation. The next day the swelling was greatly diminished, and by the 16th the discharge of pus was small, and the patient in much ease and good spirits. By the 20th of November the discharge had diminished to one drachm per day on the inner side, and a few drops of clear, gelatinous fluid issued from the tube. On the 21st the tube was removed and a small piece inserted just within the outer edge of its site to prevent too rapid closure. At this time there was a marked difference between the pulse at 6 A.M. and at 8 A.M., it being accelerated as much as twenty beats immediately after eating his breakfast. This state of the pulse existed until the 14th of the next month, and seemed to produce no

inconvenience and to be due to no cause directly dependent on the condition of the joint.

On the 24th the foot swelled on the outer side and a few drops of pus issued from the site of the tube, which I in consequence reinserted; and on the following day an ounce of pus was discharged from the original wound. The tube was removed finally on the 28th, and the opening firmly closed at once. The same condition arose just above the instep on the 29th and on the inner side of foot on Dec. 2d, and a very slight discharge of pus, not more than two drachms occurred on the 4th, through the openings already made, with speedy relief to the tenderness and swelling.

By Dec. 6th the appearance of the foot was much improved, all the openings being closed by granulation except that over the tibia, though it continued oedematous; and a flannel bandage was tightly applied to the foot, leaving the opening in lower third of the tibia free, as there was a discharge of reddish pus from it which appeared to come from below.

This discharge had nearly ceased by the 18th, and the pulse and temperature had been for some days nearly normal, but on the 19th a general swelling and shiny appearance arose over the whole foot, and on the 20th caused much pain, the pulse at 5 P.M. of this day rising to 116°, with a temperature of 100.6°. The foot and ankle were swathed in lint wet with hot water, and covered with oiled silk, which was continued until the 23d, when half a drachm of pus was discharged from the inner side, with relief and diminution of the glazed and red appearance. A few drops of pus continued to be discharged daily. On the 24th and 25th of Dec. the pulse rose to 100 and 104 respectively in the evening, and the temperature to 101° and 102°, due, it was thought, to some excess in diet. On the evenings of Jan. 2d and 3d the pulse and temperature again rose, and speedily fell to nearly the normal on the discharge of but a few drops of pus, which appeared not to be deep-seated. This was the last disturbance from this cause and the details are given to show the great irritability of his system, and the disturbing effects of even a few drops of imprisoned pus.

On Jan. 5, 1879, the Smith's anterior splint, which had given him such freedom from pains and myself such convenience in the frequent dressings, was removed, and a course of frictions, shampooing, and the use of compressing flannel bandages adopted, under which the swelling and congestion of the foot and ankle rapidly and regularly diminished, so that he was on crutches in a few days and could walk with only the aid of a cane by about Feb. 1st.

He was discharged from the hospital on March 2d, 1879, and at that time the condition of the foot was as follows: The soft tissues of the foot and ankle were almost normal in appearance; there was firm ankylosis of the ankle-joint, and its circumference was only one-eighth of an inch greater than that of its uninjured fellow. The foot preserved its natural relation to the tibia; its lateral motions were preserved as well as the movements and functions of the toes. He suffered no pain, and before his discharge from the service on April 1, 1879, he had frequently walked with only the aid of a cane to and from the city of Salt Lake, a distance of three miles, over a rough and hilly road, without great fatigue or injury to his foot.

Although a successful result was attained in this case, it was at the expense of great risk and suffering to the patient, and of greater care and attention on the part of the surgeon and attendants than I have known

necessary in a surgical experience of over twenty-five years. Notwithstanding his youth and natural vigor, his condition was certainly precarious for several weeks, and I think it will be admitted that the effort to save the foot without essential resection was certainly, as Billroth regards such attempts, "a dangerous experiment."

I am confident that it would have been better to have removed cleanly the articulating surfaces of the tibia and a thin slice of both bones, and in this sustain the opinion that resection in such cases should be preferred to other modes of treatment; and I incline to believe that both patient and surgeon may well be satisfied to secure ankylosis without seeking to obtain motion in the new false joint, and thus entail the additional risk of constitutional disturbance and perhaps of an insecure joint.

I invite attention to the use of the long drainage-tube—one end being inserted into a bottle containing a disinfecting fluid, as first practised by Mr. McGill, of Leeds, England; to the fact that the peri-articular suppuration did not depend on perforations of pus from the cavity of the joint; and to the rarity of the occurrence of this dislocation without fracture of the fibula above the malleolus.

FORT DOUGLAS, UTAH, July 1, 1879.

ASTHMA FROM REFLEX CAUSES.

By WM. PORTER, A.M., M.D.,

ST. LOUIS, MO.

AMONG many causes of bronchial asthma, reflex irritation seems to play an important rôle. In not a few cases the phenomena attending the disease cannot be explained by any theory of local lesion within the lower respiratory tract—the cause is from without. The following case affirms this:

A merchant, æt. 40, asked advice on account of obstruction in the superior pharynx. For several years he had had asthma more or less constantly, and had exhausted all the ordinary measures for relief. The inhalation of compressed air had also been administered by a most experienced physician. The paroxysms gradually became more violent as the pharyngeal condition progressed. On examination of the chest only slight emphysema was found, and an occasional coarse mucous râle heard, equally on both sides. In the pharynx the whole of the vault was filled with a gelatinous mass—small polypi closely crowded together. A probe was introduced, and, so soon as this mass was touched, the patient had severe dyspnoea, lasting several minutes. Removal of the polypi was of course advised with the hope that subsequently the asthma might be relieved by proper treatment. As soon, however, as part of the polypi was removed—which was done with difficulty, owing to the recurrence of the paroxysms of dyspnoea—a diminution of the bronchial symptoms was evident. A few days after the last polypus was removed the patient was free from asthma. Two months later there was a slight return of the old trouble. Several small polypi, which had recently formed, were removed, and the pedicle of each touched with chromic acid. Since then, eight months, this patient has been free from asthma.

It will be noticed in this case that the bronchial irritation progressed *pari passu* with the growth of the polypi; that removal of the polypi relieved the asthma, which recovered when new polypi formed, and disappeared entirely when the neoplasm was

finally destroyed. It was not thought, in the first instance, that the asthma was wholly due to the presence of the polypi, as now seems evident. The impression made upon the nerves of the pharyngeal plexus was doubtless transmitted directly to the pneumogastric through the ganglion of the trunk. It has been proven that respiration may be impeded through irritation of the pneumogastric nerves, causing approximation of the cartilaginous rings of the bronchi (Bert and Traube), and in this instance the source of the irritation was in the pharynx.

Another case, in some respects similar: A gentleman, *æt.* 37, who suffered from severe attacks of bronchial asthma for at least a year, was found to have a greatly enlarged and painful tonsil. He also complained of pain, more or less constant, in the region of the trapezius muscle. Remembering the above case, as well as acting from general principles, I advised and effected removal of the diseased tonsil, where, deeply imbedded in the portion excised, was discovered a hard calculus, one centimetre in its greatest diameter, and very rough. The patient had several slight paroxysms of asthma during the healing of the pharyngeal wound, but since then—three months—has had no return. The pain in the shoulder has also disappeared. Referring again to the nerve-distribution, we find the tonsillar branch of the glosso-pharyngeal nerve directly connected with the pharyngeal plexus, through which, as stated, the pneumogastric may be influenced. The pain in the trapezius muscle was probably due to irritation of the spinal accessory nerve. This, by the way, is not infrequent in cases of chronic pharyngitis.

Disturbance of the pneumogastric, producing asthma, from causes located elsewhere than in the pharynx, may occur. Ovarian disease is often the source not only of apparent asthma, but of cardiac irregularity, while uterine complications are responsible for these symptoms—for here they are but symptoms—in many instances.

A case in point: A lady, *æt.* 46, was seen in consultation on account of rapid heart action and severe attacks of asthma. The physician in charge, after repeated and patient effort, had found no evidence of organic lesion except a well-defined local tenderness over the left ovary. Our joint examination confirmed this; the lungs were certainly free from disease, and, except that the area of cardiac dulness was somewhat enlarged, the heart seemed normal. Respiration, 24; pulse, 120; temperature, 99.6° F. The menstrual function was imperfect, but had not entirely ceased, though the patient was seemingly near the menopause. In the absence of evidence of pulmonary or cardiac disease, the treatment was addressed to the ovarian irritation, for it was presumed that this, by reflex influence, produced both the dyspnoea and rapid heart action, the latter in turn causing the slight cardiac hypertrophy. This opinion was justified by the result. Counter-irritation was made over the ovarian region, and perfect rest enjoyed. No other treatment, except small doses of potassium bromide, was used. In a week the pulse had fallen to 100, and the attacks of dyspnoea were less, both in frequency and severity. After a month there was little, if any, reflex disturbance.

Schultz (*Allg. Zeit.*, 1876) and Weber believe that bronchial asthma is due to vaso-motor neurosis, while Bruner (*Sovrem. Med.*, Warsaw, 1877), working in the same direction, declares that "asthma bronchiale is dependent upon an over-stimulation (exhaustion?) of the pneumogastric nerve." This author, in accordance with his belief, seeks to cure asthma by applying

the galvanic current to the affected nerve, and with some success. Some cases there are, however, as those we have mentioned, in which there is a definite cause for the reflex stimulation. Hence we conclude that in all cases of asthma it is important to determine whether reflex influence is present, and, if so, to remove the remote cause of irritation, if possible. Where this is the prime factor it is not likely that any of the ordinary methods of treatment alone will suffice.

There are many instances, doubtless, where structural lesions of the bronchial mucous membrane follow impressions made upon the pneumogastric nerve. The vaso-motor supply may be thus so influenced that effusion and secretion result. Where such conditions have followed reflex disturbance, removal of the primary cause cannot always effect immediate relief. It is, however, a *sine quâ non*, and equilibrium of the circulation in the mucous membrane of the bronchial tubes is generally soon restored.

Progress of Medical Science.

POISONING FROM THE USE OF DUBOISIN DROPS.—*The Lancet*, for September 6th, reports eight cases occurring at the ophthalmic department of St. Thomas's Hospital, in which toxic symptoms were produced by the use of duboisin drops. The preparation employed was a four-grain solution of the sulphate of duboisin; two or three drops were used, and in some of the cases repeated a few times. The drug was given to assist, or as a substitute for, atropia. The prominent symptoms produced were dizziness, delirium, and inability to walk. In only a few cases was there dryness of the throat. The symptoms subsided in a few hours or a day. The cases seem to show that the drug is more powerful than atropia, and has a somewhat different constitutional effect.

BLOOD-POISONING AND ANTISEPTIC SURGERY.—Mr. Wm. S. Savory, surgeon to St. Bartholomew's Hospital, discussed the above subject before the British Medical Association at its last meeting, taking ground against the Lister method. Blood-poisoning he defined to be the introduction into the blood of matter capable of producing putrefaction. He considered it well established that this septic matter is an organic particle, either animal or vegetable.

The system is in danger from it:

1. If it be in contact with the wound.
2. If the wound have not a healthy surface.

The two great objects, therefore, in surgical operations, are to exclude all putrefying or decomposing fluids from the wound, and to keep the wound itself in the healthiest state possible, it being demonstrated that septic poison cannot pass through healthy granulations. If these two things are done, there can be no danger from blood-poisoning.

According to Mr. Savory, Mr. Lister's method aims at only one of these objects—that of the rigid exclusion and prevention of foul fluids. This aim, though theoretically good, practically is not always attained.

Besides this general objection, the following other points against Lister were made:

1. There are no statistics showing better results from Lister's than from other methods; in fact, none that are quite so good.

2. The fact that wounds often heal by first intention, or with great rapidity, when exposed to the air,

throws doubt upon the theory of the antiseptic method.

3. Mr. Savory's personal experience and observation had led him to believe that, as a rule, wounds heal more directly and quickly under simpler plans.

4. He denied that under Lister's plan operations can be performed which would not be attempted under ordinary methods.

5. Blood-poisoning does occur under the Lister plan, even in the best hands. Thus, instead of excluding septic fluids from the wound, it may imprison them there.

6. The dressing is very often irritating.

7. The fact that the dressing generally prevents the formation of pus, is of little weight. Healthy pus upon a granulating wound is a favorable sign.

8. The drainage tubes are very often a source of local and general irritation.

The principle of the Lister method is sound but narrow; and the practice has not yet shown as good results as those from other methods.

RESUSCITATION OF DROWNED PERSONS.—A new method for the resuscitation of the drowned is described by Dr. Thos. E. Satterthwaite. It is claimed to be simpler than any of the already recognized methods; it needs but one operator; but little muscular force is called for, and the person is subjected to no rough usage. The directions are as follows: First, try and get something warm and dry to exchange for the wet clothing. Second, try and clear the air-passages of water by slightly elevating the body, while the mouth is wedged open and the tongue depressed. In half a minute or less the water will be driven out.

Third, turn the person over on the back, with the head still a little lower than the body, keeping the mouth wedged open with a bit of wood, and the tongue depressed with the finger of one hand. Then, sitting beside the person, make upward pressure with the other hand upon the bowels. Press slowly at first, then remove the hand that the air may enter the lungs. Repeat this three or four times a minute in the beginning, then increase to fifteen or eighteen times a minute.

If there is an assistant, the arms may be grasped and Sylvester's plan used in addition. Ammonia or smelling-salts may occasionally be applied to the nostrils, to stimulate the nerve-centres.—*Public Health*, July 5, 1879.

A CASE OF UNILATERAL PARALYSIS AGITANS.—Dr. Dyce Duckworth, assistant physician to St. Bartholomew's Hospital, reports the following interesting case of unilateral paralysis: The patient was a herdsman, aged sixty, well-nourished, and with no history of syphilis or intemperance. Two years previously, having been exposed to wet, he was taken with pains in the right arm; tremblings gradually supervened in the right hand; these extended up the arm, and at length obliged him to leave his work.

When presented for treatment, these tremblings had grown still worse; they diminished on movement of the arm, but began again when anything was grasped. They ceased during sleep. The flexor muscles were somewhat contracted, the power of the arm weakened; sensation was unimpaired. There was much restlessness at night, and the patient was awakened two or three times with paroxysms of pain and trembling in the arm. There was no tremor in the head, and the speech was unaffected.

The patient was placed on the bromide of camphor, it being gradually increased from one to fifteen grains

a day. Subsequently, the galvanic current, twenty-six cells, was given daily. He gradually improved, so that he was able to pick up things and even write. The case then remained stationary, and was finally discharged.

The case illustrates a rather unusual form of the onset of the disease; it shows also that the bromide of camphor, recommended by Charcot, is of considerable value as a palliative.—*The Lancet*, Sept. 6, 1879.

THE OPEN METHOD VERSUS LISTER.—To illustrate the success which may attend the treatment of surgical cases on ordinary surgical principles, the following statistics were given by Mr. Savory in his attack on the Lister dressing. At St. Bartholomew's Hospital, in 1876, the number of deaths from pyæmia, after operations, was 2, or .49 per cent. In 1877 the deaths from the same cause were 4, or .95 per cent. In 1878 the deaths were 4, or .96 per cent. During the three years there was a total of 18 deaths from blood-poisoning after 1,235 operations, this being at the rate of 1.44 per cent.

PARACENTESIS PERICARDII A JUSTIFIABLE OPERATION.—The above operation, which after trial has been pretty generally abandoned in New York hospitals, is urgently recommended by Dr. John B. Roberts, of Philadelphia. The operation was proposed two hundred years ago, but only seven recorded cases of the operation could be found in America. Dr. Roberts, however, collected elsewhere in all forty-nine cases, of which twenty-three recovered.

The cases requiring paracentesis especially are those where a sudden effusion occurs in acute articular rheumatism. In Bright's disease, pleuro-pneumonia, and purulent pericarditis, not so good results can be expected. The operation should be done with an aspirator; the best point for the needle or trocar being the fifth intercostal space, one and a half inches from the middle line (not the left edge) of the sternum. If the fluid reaccumulates the tapping should be repeated, and if it becomes purulent a drainage-tube may be left in the wound.—*Phila. Med. Times*.

OBSERVATIONS IN ONE HUNDRED CASES OF CARCINOMA.—Some very interesting facts in regard to carcinoma, as it occurs in this country, have been collected by Dr. T. E. Satterthwaite and Dr. W. H. Porter, and presented in the form of an elaborate monograph in the *New York Medical Journal* for September. The histories of the cases have been followed up with great care, ninety-five per cent. of the cancers having been examined microscopically. There is no previous set of cases that has been studied so thoroughly and minutely.

The authors classify the carcinomata into five groups, viz.: 1. Epithelioma; 2. Scirrhus; 3. Encephaloid; 4. Colloid; 5. Cauliflower growths. This division and the descriptions given of each are much like those ordinarily accepted. Under the head of epithelioma is included rodent ulcer, and the differential diagnosis between it and lupus vulgaris is given. Rodent ulcer is considered a growing inward of the rete, which does not, however, extend as rapidly or as deeply as the ordinary epithelioma, and rarely forms the epithelial cylinders characteristic of that affection. Rodent ulcer is in fact only a low or mild form of epithelioma. The cases of each form of cancer are analyzed, and presented in tabular form, showing the age, sex, condition, occupation, date of beginning of growth, its locality, cause, the family history, enlargement of lymphatic glands, treatment

previous to operation, date of operation, condition of health previous to cancer, whether pain was relieved by the operation, whether the growth was more rapid when it recurred, date of recurrence, interval between period when first noticed and first removed, number of recurrences, number of operations, extent of operations, interval between first removal and death, duration of non-fatal cases, length of the course of the disease, date and cause of death, locality of recurrent growth, complicating diseases, variety of the disease, name of the examiner.

Under nearly all of these heads some more or less positive conclusions were deduced; and the results are compared with those of Paget, Winiwarter, and other observers. Some of the more important ones may be noted.

In regard to scirrhus cancer the disease was found to commence between the ages of forty-two and forty-six, the least age being twenty-eight, the most advanced seventy-six. External scirrhus occurs more frequently in females; internal, in males. 80 per cent. of the cases occurred in the breast, and next in frequency were the stomach, the liver, and the uterus. In 36 per cent. some form of traumatism, such as blows, abscesses, or ulcers, was assigned as the cause, this being a much larger per cent. than is usually given. About 30 per cent. had a family history of carcinoma. Such treatment as has been received previous to operation had resulted in no good; this treatment consisting of arsenic, electrolysis, etc.

The previous health had been good in 82 per cent., and it was inferred that scirrhus cancer was a disease of established health. The operation for removal caused relief from pain in 63.41 per cent. of the cases, a showing favorable to operative procedure.

On the whole, the rate of growth after removal and upon recurrence appeared to be more rapid than before, though this conclusion could not be made positively, and is at variance with that of Paget.

The average period between inception of the disease and operation was seventeen months, the average interval between first removal and death, twenty months. This does not include the non-fatal cases, which would bring up the average to over twenty-five months. The person who had lived longest was operated on four times, and the fact is emphasized that where the greatest number of operations have been performed, there is the greatest duration of life.

In regard to the reliability of the microscope in making diagnosis of these growths, it is stated that in not one case, where a good specimen was furnished, was a mistake made in assigning them to their proper class.

It is further stated that scirrhus never undergoes any change when it returns to the same site.

No positive relation of the disease to phthisis or syphilis could be made out.

Scirrhus cancer embraced forty-one of the one hundred cases. Epithelioma came next in frequency.

This occurred at an average age of fifty-four years; three-quarters of the cases being males. One-third of the cases were located on the lip. In 32 per cent. smoking a pipe was assigned as a cause, and in over half the cases there was some kind of traumatic cause given. In 13 per cent. there was a family history of cancer.

The treatment previous to operation had, in most cases, been the application of a saturated solution of terchloride of antimony, and this had often done much good. In three-fourths of the cases the general health had been good. The rate of growth after

removal was, in 44 per cent., more rapid. In 70 per cent. of the cases it had not returned.

The average duration of all the cases was over forty-four months, some of the cases being still alive.

An important deduction was made on the microscopical examinations. In no case was a sarcoma seen to undergo conversion into a carcinoma, or be in any way associated with it. The converse was also true.

Some important clinical facts are also given in regard to the variety and site of carcinoma. Given cancer of the breast, and it will almost certainly be scirrhus; given cancer of the eyelid, and it will almost certainly be rodent ulcer; given cancer of the liver, and it will almost certainly be encephaloid.

THE HYPOPHOSPHITES IN PHTHISIS.—The question of the value of the hypophosphites in phthisis has been revived, with varying testimony in regard to them. A writer in a California journal praises them, to the disparagement of cod-liver oil. Dr. Charteris, in *The Lancet*, some time ago, related excellent results in his experience from them. The records of a more than usually careful study of their influence have recently been published by Dr. J. G. Sinclair Coghill, of the Ventnor Hospital for Consumption, England.

The hypophosphites were prescribed in 100 cases chosen indiscriminately, 63 being cases of pneumonia, and 37 of tubercular phthisis. Eight grains each of the hypophosphite of soda and lime in an ounce of the infusion of cascarrilla, were administered twice a day after meals. During this treatment the various symptoms were carefully noted.

In regard to colliquative sweating, no good was done by the hypophosphites, and the same may be said of fever cough. The appetite was improved in 52, and the weight increased in 62 cases. The physical signs improved in 43 patients.

It was considered proved by a comparison of the cases that the hypophosphites have no claim to be considered a specific remedy for phthisis. They have, however, valuable tonic properties, improving the appetite, increasing the weight, and helping digestion. They are heat-producers, and should therefore be used only in the early or arrested stages of the disease.—*Lancet*, Sept. 6, 1879.

OVARIOTOMY AND COLD AFFUSION IN THE WOMAN'S HOSPITAL.—During the past ten months, from September, 1878, to July, 1879, Dr. T. G. Thomas has performed ovariectomy twenty-two times in this institution. Out of the twenty-two cases, cold affusion, by Kibbe's method, has been employed in nine, with the result of twenty-one recoveries, and one death. The death occurred in a patient sent to the hospital in a most forlorn condition, three weeks after delivery. The operation was resorted to as her only chance, as she was rapidly sinking, and she died from exhaustion. In this case cold affusion was not used.—*New York Medical Journal*, Sept., 1879.

PREPARATORY SCHOOLS OF MEDICINE.—A preparatory school of medicine and pharmacy has been established at Amiens, and will be opened in February, 1880. It offers a good example to England and America, both which countries are now discussing the deficiencies of preliminary education. There is already in this country a course of study at Yale College very well adapted to those intending to study medicine. It has not, however, the surroundings which would make it popular to medical students.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 11, 1879.

THE MECHANICAL TREATMENT OF POTT'S DISEASE.

II.

To the plaster-of-Paris jacket, as used by Dr. Sayre, there belongs another factor in treatment—namely, suspension. Suspension in Pott's disease is not entirely devoid of danger; yet it has been practised many hundreds of times without any apparent injury. Its chief value, doubtless, consists in the fact that it enables the surgeon to apply the jacket properly. It is claimed that by its use the pathological curve is diminished. In every deviation of the spinal column, be it antero-posterior or lateral, secondary curves are always formed, which are called compensatory. These secondary curves form above and below the point of disease, and tend to make that portion of the spinal column appear more deformed than it really is. It is possible, by extending the spine by suspension, to obliterate these secondary curves, and thus *apparently* diminish the pathological one, but it is doubtful if any real effect is produced upon it. The fibrous tissue ligaments and muscles about the point of disease hold the bones fixed, and prevent any sudden change of their relation. It has been demonstrated that by suspension the perfectly healthy spine can be lengthened. How much of the elongation of a diseased one may be thus explained?

In disease occurring in the cervical region the jacket is useless, except as a foundation for the bar that carries the chin-piece or jury-mast. Many think that, for disease in this region, the steel support, with an apron in front, is far superior to the jacket. The advantages of the plaster-of-Paris jacket are the ease with which the materials for its application can be obtained, the little experience required in comparison with that necessary for the fitting of a steel support, and its cheapness. It requires considerable experience (notwithstanding the statements to the con-

trary), to apply one properly, even by those who have used plaster-of-Paris bandages for other purposes; but, to one not accustomed to prepare and apply them, the difficulties are not few, and he will find out, to his sorrow, that excoriations will occur and the patient will complain. Dexterity in this, as in any other surgical application, is indispensable. We have seen cases in which the jacket has been put on, and in which it did not the slightest good;—not from any deficiency in knowledge, but from a lack of experience. The great claim for this material for splints is its cheapness, and if the objections can be overcome it will certainly prove a useful addition to our means of treating Pott's disease—chiefly in cases in which the disease occurs below the middle dorsal region. The steel support is no doubt a difficult apparatus to adjust. It requires not only time and mechanical skill, but considerable experience, and we suspect that this is one reason why so many do not think well of it. The idea that one can send to a surgical instrument-maker for a brace that will be of any use without any further adjusting, is based on a misunderstanding of the abilities of instrument-makers. This may account for the very unsatisfactory results that have followed the use of braces by the general practitioner, and one reason why the plaster-of-Paris jacket has become so popular—we had almost said fashionable. There is no question but that an apparatus that can be removed and permit of the simple rules of cleanliness being carried out, has so much in its favor. We do not wish to be misunderstood in this connection. We have no pet brace to advocate, nor do we wish to decry one method of treating Pott's disease or unduly praise another. We know that in skilful hands excellent results have followed the use of the plaster jacket; equally good results have been obtained by the use of felt splints; and years before the use of the plaster jacket was proposed, as good a result as we have ever seen by any method of treatment was obtained by a layman using a splint of cloth and shellac.

An impression has become somewhat current that, because a brace or a jacket has been applied to a case of spinal disease, the patient should be able to go about and engage in his plays or work as though he had no trouble, and that the treatment of these cases is a mere question of support. Nothing can be more harmful to one suffering from Pott's disease. The rule is, the more quiet, the better will be his chances of recovery. The fact is, that it is impossible to render a spine absolutely immovable when a patient is going about, no matter what kind of a brace or bandage is applied; and we must insist that as much rest shall be taken by our patients as is compatible with health, at least in the more acute cases.

It is a good rule to confine our patient to his couch for a week or more, and then gradually to permit of exercise in order that he may become accustomed to

his support. It should always be remembered that out-of-door exercise is secondary to absolute rest of the parts.

There has been much said and written of late on the necessity for extension in Pott's disease. It is a question whether, by any known apparatus, the spinal column can be held in a state of permanent extension; that is, that the bodies of the vertebrae can be pulled apart. What can be done, and is done by all forms of apparatus constructed on correct principles, is to throw the body back, and thus transfer the weight, as much as possible, from the bodies to the lateral masses. Those afflicted with spinal disease try in this way to relieve the pain, and this position is one of the most prominent symptoms of the affection. It is astonishing how little support, in some cases, is necessary to afford relief, especially in those in which the lower dorsal or lumbar vertebrae are involved. Simply fixing the spine in an erect position appears to be all that is required for some, while for other cases it seems almost impossible to give enough support.

In the treatment of spinal curvature, as in all other surgical diseases, that mode of dressing with which the surgeon is most familiar, and which has yielded for him good results, is generally the one he advocates. In discussing this subject it should not be forgotten that one may obtain good results from the use of a brace with which he is familiar, while another is equally successful with one of another pattern or construction. One may have more mechanical ingenuity than another, and of course can apply a brace or jacket better. In forming a judgment in this matter, it should be taken into consideration that there is no brace, jacket, or bandage that does not have some drawback. They all will, at times, chafe, and be uncomfortable; sometimes one form of support cannot be worn, while another can, and there are some cases in which no apparatus can be applied. There is no one spinal support that is applicable to all cases. We continually hear the claim made for this or that brace that it can be applied by any one. While deeply sympathizing with this desire, we cannot shut our eyes to the fact that experience in this, as in other departments, will always be indispensable to obtaining the best results. We do not believe that the treatment of Pott's disease will ever be so simplified that good results will follow any method of management in unskilled hands; he who has managed successfully the largest number of cases will be rewarded with the uniform best results. Of course there are very many cases that cannot be sent to a specialist, and to one who is forced to treat such a case any support that will meet the indications will prove of use, whether it be made of steel, plaster-of-Paris, paper, felt, or any other material. If the surgeon fully understands the principles upon which the treatment should be conducted, and has, or can avail

himself of mechanical ingenuity, he will either devise a new apparatus or modify some old one, so that he will adapt the surgical appliance to the special indications in an individual case, and will be rewarded with a commendable degree of success. If he does not possess these qualifications, his patient will suffer under his management, regardless of the plan of treatment adopted.

THE NEW HALL FOR THE ACADEMY OF MEDICINE.

THE dedication of the new hall of the New York Academy of Medicine was a notable event in the medical history of this city. By the liberality of Dr. Abram Du Bois, a fellow of the Academy, this elegant, convenient, and commodious building is now placed at the disposal of the profession. Together with the Academy building, of which it is an extension, it helps to realize the oft-expressed desire of many Fellows, of a general meeting-place of which the profession shall be proud; while the library, now numbering many hundreds of rare volumes, has a fitting habitation. In congratulating the profession of this city upon the full fruition of the plans which have been fostered for so many years, we must not forget to give the credit which belongs to the extra exertions of several individual members. We do not run the risk of being invidious in mentioning the untiring zeal of a former President, Dr. S. S. Purple, in the interests of the library, and of the extensive and valuable presentations which he has made to its shelves. Many others have done likewise in proportion to their means, and their liberalities will be duly remembered. These examples are worthy of imitation for the good of the profession at large, in making available under one roof the smaller libraries of individual members. In view of the library facilities which are now offered by the Academy, it is unnecessary to urge this method of donation. In regard to this point we may say, in passing, that we are pleased to learn that the friends of some of the deceased members are already calculating the propriety of making such gifts, and of thus building up monuments to their memory. New York is very much in need of a central medical library, and we know of no better place for it than the building of the Academy. It is true that the New York Hospital Library is a large and well selected one, and it is also true that the profession is free to consult its contents; but, belonging to a close corporation, and subject to its regulation, there is no guarantee how long the present arrangement may last. Besides, the profession is placed more or less under a feeling of obligation for the benefits enjoyed, which feelings will not be experienced in any home of its own, and where a voice can be had in its general government.

The opening exercises of the new hall were eminently appropriate. The speakers were carefully selected, and their remarks were well timed and duly appreciated by the large audience present. It is impossible

to resist the conviction that the success of the occasion was due to the indefatigable zeal of the present president, Dr. Fordyce Barker, whose donations of the magnificent bust of Spencer Wells, and of the handsome desk and elegant presidential chair, will be gratefully remembered by the society. His endeavors to prove that the Academy should be not only a scientific, but a social home for the profession of this city, were practically tested by the magnificent banquet which rounded out the exercises of the evening.

It can now be safely said that the Academy has truly waked up to the necessities of the hour, and its old friends and new will stand ready to uphold the hands of its worthy president and wish it God-speed.

THE GRADED COURSE IN BELLEVUE HOSPITAL MEDICAL COLLEGE.

The Bellevue Hospital Medical College has signified its intention, after the regular session of 1879-80, of modifying its plan of instruction so as to apportion to each one of three sessions certain divisions of the study of medicine—in other words, to have a graded course of three years. In addition to this change, preliminary examinations, or their equivalent, will be required of all students who expect to become graduates after the close of the session of 1879-80. It is gratifying to say that this is a long step in advance, and that Bellevue, in virtually taking the initiative in this city, deserves the best wishes of not only its particular friends, but of all who favor the right sort of progress in medical education. It is unnecessary to elaborate the details of the change, as it is sufficient that they are made to accord with the general principles of preliminary education, a graded course, and virtual increase of the time of study. Although every contingency as to character of study, time for yearly and final examinations, the kind of preliminary examination required, is apparently provided for, we are glad to know that the faculty is willing to make such changes or modifications in future as experience may render necessary. It is impossible to foresee the effect of such a change upon the size of its classes, but in the possibility of the latter falling off, there is a certainty in improvement of the qualifications of its graduates, and in the increase in the reputation of the school.

A CASE OF DOUBLE UTERUS AND SUPERFETATION.—Dr. Sotschawar, of Moscow, reports the case of a woman, aged 26, to whom he was called on account of hemorrhage. Upon examination he found two vaginæ, each leading to a distinct uterus. The hemorrhage proceeded from both uteri, and was very considerable. After some manipulation an embryo of about one month was extracted from the left uterus, and three days later a fetus of three months from the right uterus. The observer asserts that this is the third case of the kind known to science. It may be remembered that Dr. Fordyce Barker, of this city, has had one such case in his experience.

Reviews and Notices of Books.

MATERIA MEDICA AND THERAPEUTICS: VEGETABLE KINGDOM. By CHARLES D. F. PHILLIPS, M.D., F.R.C.S.E.; Lecturer on Materia Medica, Westminster Hospital, London. Edited and adapted to the U. S. Pharmacopœia. By HENRY G. PIFFARD, A.M., M.D., Professor of Dermatology, University of the City of New York, etc. New York: William Wood & Company, 27 Great Jones Street. 1879.

THIS is one of the volumes comprising Wood's Library of Standard Medical Authors. It consists of a condensation of the original work of the author, such as brings it within the range of the present series, and the editor has also made it conform to the U. S. Pharmacopœia. Besides, it is to be noticed that the editor has given a brief description of a few indigenous drugs which are in rather general use, and also a few of foreign origin, such as jaborandi, etc. These are acceptable additions, and are designated by being embraced in brackets. The regular order consists in a presentation of the active ingredients of each article, its physiological and its therapeutical action, and its preparations and dose. With one or two exceptions, the sections on preparations and dose have been rewritten, so as to substitute official preparations (U. S.) for those of the British Pharmacopœia; and the doses are expressed in both apothecaries' weights and measures, and in the metric system. The work of the editor forms an important part of the volume, and brings it up to the latest knowledge on the therapeutical properties of the article considered.

MEMORANDA ON POISONS. By THOMAS HAWKES TANNER, M.D., F.L.S. Fourth American from the last London Enlarged and Revised Edition. Philadelphia: Lindsay & Blakiston. 1879.

THE merits of this small book are too well recognized to require special comment. It is a convenient and comprehensive manual.

POCKET THERAPEUTICS AND DOSE-BOOK. By MORSE STEWART, JR., B.A., M.D. Second Edition. Revised and enlarged. Detroit, Mich.: Geo. D. Stewart. 1878.

THIS is a sort of an emergency book. We have heard of physicians who carry it constantly in their pocket with advantage. From this fact, and the not less important one that we have examined it and have found that it contains a good deal of practical knowledge, we commend it to the favorable consideration of medical men. It can be carried in a small pocket, and will be found to be a useful remembrancer.

THIRTY-SIXTH ANNUAL REPORT OF THE MANAGERS OF THE STATE LUNATIC ASYLUM, UTICA, N. Y. For the year 1878. Albany: Charles Van Benthuysen & Sons. 1879.

THIS report was presented to the Senate of the State of New York, Jan. 15, 1879. Considerable space is devoted to a description of the method of heating and ventilating of the institution, as given by the superintendent, Dr. Gray, for transmission to the British government. This is followed by the treasurer's report, and then we reach the superintendent's report, which consists of a general review of the operations of the asylum during the past year. The experience of the superintendent has been, that it is just and wise to have the chronic insane taken care of in their own families, when it can be accomplished; yet he does not advise the adoption of the system of providing

for this class in a general way in private houses. To this is added the pathological report, embracing the work done under the direction of Theodore Diecke, special pathologist. Considerable space is given to a description of apparatus with which every microscopist is familiar, and which could have been more profitably occupied by a description of actual post-mortem and microscopical appearances found in the brain in the various forms of insanity. The pigmentary degeneration resulting from the absorption and deposition of materials in the protoplasm of the ganglion cells, furnished by the decomposition of emigrated red blood-corpuscles, is believed to possess more pathological significance than has hitherto been admitted. If what is known as insanity is characterized by pathological lesions, there is no better place to make the necessary examination to determine what those lesions are, than in large insane asylums. The State Lunatic Asylum, according to the report, is well provided with apparatus and specimens, and the profession of the State has a right to expect more of scientific observations than it has as yet received.

MANUALS OF HEALTH: ON HEALTH AND OCCUPATION. By B. W. RICHARDSON, M.D., F.R.S., M.A., LL.D., F.S.A. London: 77 Great Queen Street, 4 Royal Exchange. New York: Pott, Young & Co. 1879.

THIS is an interesting little manual, divided into four parts. In the first is described the workers in community; in the second are indicated some of the injuries to health indirectly connected with the occupations of the different classes of workers; in the third the direct injuries to health and life are considered; and in the last part the author endeavors to point out some practical methods by which the lives of the different classes of workers may be rendered healthier and longer. It is a very readable and suggestive monograph.

VADE-MECUM OF EQUINE ANATOMY. For the Use of Advanced Students and Veterinary Surgeons. By A. LIAUTARD, M.D., V.S., Professor of Comparative Anatomy in the American Veterinary College. New York: Published at the American Veterinary College, 144 W. 54th Street. 1879.

THIS little book, containing nearly two hundred pages, is, in conformity to prescribed custom, designed to "fill a vacancy long existing." It is for the use of advanced students and veterinary surgeons, and consists of an abridgment of Chaveau's and Fleming's larger works, arranged to correspond to the professor's mode of teaching.

LABORATORY TEACHING; OR, PROGRESSIVE EXERCISES IN PRACTICAL CHEMISTRY. By CHARLES LOUDON BLOXAM, Professor of Chemistry in King's College, London. Fourth Edition, with 89 illustrations. Philadelphia: Lindsay & Blakiston. 1879.

THIS work evidently is intended for those who are beginning the study of practical chemistry in the laboratory. It has passed through three editions, and the student is now favored with the fourth, which contains some alterations; but the most important is the introduction of the formulæ representing the various chemical compounds described in the notes to the tables. The book will be found a valuable guide to the student in chemistry.

AMERICAN HEALTH PRIMERS: THE SUMMER AND ITS DISEASES. By JAMES C. WILSON, M.D. Phila.: Lindsay & Blakiston. 1879. Pp. 160.

THIS book treats of the summer, sunstroke, and heat fever, which latter is distinguished from other tran-

sient febrile states; summer diarrhoea and dysentery, cholera infantum, summer and autumnal fever, summer colds and hay-asthma, the skin in summer and its diseases. The author writes as though he liked his subject, and has made the book a very interesting one.

L'ANNÉE MÉDICALE. Résumé des progrès réalisés dans les sciences médicales. Sous la direction du Dr. BOURNEVILLE, du *Progrès Médical*. Paris: R. Plon et Cie., No. 10 Rue Garangière. Pp. 417.

THIS volume is a very clear and satisfactory abstract of new ideas and discoveries brought forward during 1878. Controversies are sifted, and their final conclusions tersely stated; verbose descriptions by enthusiastic authors are condensed, and their essential points made more conspicuous. An effort has been made to sum up whatever is new and valuable in all that has been noticed in journals, monographs, reports of societies, etc., during the year. The descriptions are full enough to give a clear idea to the ordinary reader, and a good index of authors tells those specially interested where they can look up more carefully what particularly attracts their attention. The plan of the book deserves commendation in these respects. It is impossible to adequately review in a small space a work which is itself an epitome. We shall merely endeavor to give a general idea of the class of articles, calling special attention to only a few.

Under the head of anatomy are mentioned new investigations with reference to the origins and decussations of cranial nerves (M. Math. Duval), and new ideas of nerve-terminations developed by staining with .01 solution of chloride of gold (M. Ranvier). M. G. Hayem's anatomy of normal blood, and his theories in the matter of hæmatoblasts, are quite fully noticed. Careful measurements show the following: Normally, the sum of the calibres of bronchial tubes equals that of the original tube from which they arise; hence the respiratory passages constitute a cylinder, and not a cone (M. Marc. Lée). The right hemisphere the larger in a considerable majority of 300 brains (M. Le Bon). In 200 cadavers and 130 living patients the average capacity of the male urinary bladder exceeded that of the female organ by .07 (Hoffman).

The chapter on physiology is quite full. Specially striking are: Jacobson's branch of the glossopharyngeal, the motor nerve of the parotid gland (Heidenhain); the secretion of this gland, normally acid and not alkaline, as hitherto supposed (M. Astaschewsky). The acid principle of the gastric juice, the chloride of a feeble base (M. Richet). The retardation of the pulse in aortic regurgitation less than normal (M. F. Franck).

M. A. Kriedmann believes that he has demonstrated the depressor nerve of the circulation in the human being. The function of the semicircular canals is to give a notion of the three dimensions of space (M. Cyon). The telephone, microphone, and some other matters are described and discussed.

Under the head of medicine are pointed out new researches with reference to the germ-theory of fever (Pasteur); tracheotomy with the thermo-cantery (Berger, Desprès, &c.); pneumonia an herpes of the lung dependent upon a primary neuritis of the pneumogastric (M. Fermet); diseases of the heart, liver, kidneys and nervous system.

General Surgery is amply reviewed, and special chapters are devoted to the description of advances made in the study of diseases of the eye, ear, and genito-urinary tract.

In Obstetrics, utero-ovarian amputation, cephalotripsy, gastro-elytrotomy, and the question of the fœtus being affected by medicines taken by the mother, receive special attention.

The section on therapeutics contains a long note on mineral waters, and observations upon the actions of *diosma rotundifolia*, *duboisia myoporoides*, *grindelia robusta*, *phytolacca decandria*, &c.,

TRANSACTIONS OF THE PATHOLOGICAL SOCIETY OF PHILADELPHIA. Volume eighth. Containing the Report of the Proceedings from September, 1877, to July, 1878. Edited by J. HENRY C. SIMES, M.D., Lecturer on Histology in the University of Pennsylvania; Recorder of the Society. Philadelphia: Printed for the Society by J. B. Lippincott & Co. 1879. Pp. 225.

We gladly welcome another volume of the Transactions of the Pathological Society of Philadelphia, being the eighth report of its work. Its arrangement is the same as that of former issues, and reflects great credit upon the individual members of the Society, as well as upon the editor. The volume contains the reports on sixty-three specimens, besides a valuable paper on "The Causal Lesion of Puerperal Eclampsia," by James Tyson, M.D., consisting of over fifty pages that will well repay a careful perusal.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Oct. 2, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

DEDICATION OF THE NEW LIBRARY HALL.

THE Fellows of the New York Academy of Medicine and the invited guests met in the New Library Hall, and the meeting was called to order at 8.15 P.M. by the President.

After the reading of the report of the Committee on Admissions, by DR. E. H. JAMES, Chairman, DR. JOSEPH WIENER, Chairman of the *Committee on Subscriptions*, read his report, in which it was stated that sufficient money had been collected to defray all the expense of the new building and the improvements. He then read the names of all the subscribers.

DR. S. S. PURPLE, Chairman of the *Building Committee*, then read the report of that committee, in which it appeared that the receipts had been \$12,578, and the disbursements \$12,556. These figures included the \$3,000 placed to the credit of the Library Fund by reason of an additional donation of \$3,000 to the Academy by Dr. Abram Du Bois. The entire cost of the improvements had been provided for, and no debt had been created.

ADDRESS BY THE PRESIDENT.

The President then delivered the dedicatory address, in which he first referred to the reports just read, as containing a significance and depth of meaning which to thoughtful men must be more suggestive to the imagination, more comprehensive in its influence upon the younger members of our profession, who were hereafter to carry out what was only begun, than any fascination of rhetorical graces or oratory. There was in it an eloquence of results more moving and abiding than could be expressed by words. He

then paid a special compliment to the Chairman of the Subscription Committee, also to the Chairman of the Building Committee, who began his functions by creating the necessity for a Library Hall by his magnificent donation of what, in some respects, constitutes a unique library, and also expressed the pleasure and the appreciation of the Academy regarding the contractor and the builder.

With the dedication of the new Library Hall, it was hoped, there began a new era in the history of the New York Academy of Medicine, and that the rooms would give a central place where the profession would work for the advancement of science and the cultivation of the social graces which bind us in the friendly ties of a common brotherhood of a useful and honorable profession.

The founders of the Academy "built better than they knew." There was good reason to anticipate that the young men in the profession, who were soon to fill the places and carry forward the mission of the medical profession in this city, would in mental activity, and useful and creditable work, far surpass their predecessors.

"Young men, we who soon are to give place to you, salute you."

The President then referred in glowing terms to what could be done by capacity for creating circumstances, by power of compelling everybody to work for the ends set out to be obtained, by breadth and scope of influence, as illustrated by him who began as an assistant surgeon in the U. S. Army, and through whose labor one of the most remarkable medical libraries in existence had been founded. Reference was also made to the great work which the same gentleman had done in connection with the organization and efficiency of a National Board of Health, through the agency of which we might confidently hope that in the future we might be spared from those terrible epidemics which bring distress and sorrow to some portions of our country. It was not for the sake of personal compliment that such reference was made, but for the purpose of enforcing the moral that if the genius and ability of one Billings could accomplish so much, what ought not be expected for the future as the result of the active exercise of the combined talent, labor, and learning of such an organization as the New York Academy of Medicine.

The significant question was asked by the President, "May we not anticipate that we shall yet obtain the means of securing a home worthy of the city of New York, the great commercial—and, without wishing to dishonor Boston in the least, who had her worthy representative present—the great intellectual metropolis of the continent?" But to realize the hope we must demonstrate our worthiness to hold such a trust—one that would be as imposing as the noble edifices of the Royal College of Physicians and of the Royal College of Surgeons of London. Should any one, however, see fit to impose the trust upon them now, they would try and "bear the shock with manly courage."

MARBLE BUST OF MR. T. SPENCER WELLS.

The President then presented to the Academy, in the following appropriate language, a beautiful marble bust of Mr. T. Spencer Wells:

"A few months since a monument was erected in the town of Danville, Kentucky, in honor of McDowell, the surgeon who first successfully performed an operation which now must be conceded to be the greatest surgical achievement of the present century. It was a tribute due from the profession to one of its

great men. The operation is now accepted as one of the valuable additions to our means of saving many loved lives. It has been successfully performed in this country in many hundreds of cases by Atlee, Kimball, Dunlap, Peaslee, and others. Many of us can remember when it was denounced by the most prominent men in the profession, both at home and abroad, as an operation so hopeless and desperate as to seem unjustifiable, even in the face of surely impending death from ovarian disease. Yet, within a recent period, one of our number—need I mention the name of T. Gaillard Thomas—has performed the operation in twenty-two cases, with but a single death.

"The great work of our lamented Peaslee was dedicated to the memory of Ephraim McDowell, the Father of Ovariectomy, and to Thomas Spencer Wells, the greatest of ovariologists. The latter has performed the operation 958 times, and, according to the calculations of Lord Selborne, late Lord High Chancellor of England, made in 1875, and based on five hundred operations, he must now have added to the life of woman in Great Britain but little short of 20,000 years of health, of usefulness, and happiness. His previous valuable contributions to general surgery have been comparatively forgotten in the great fame he has acquired as an ovariologist. How it has happened, that one whose name is one of the chief glories of England as a benefactor to humanity, has not ere this received the highest honor which government ever bestows upon medical men, would be a mystery to us on this side of the Atlantic, did we not recall the fact that it has long been the custom of courts and of governments to confer the highest honors on those who are most successful in destroying life on a large scale, and not on those who save life. Feeling strongly, as I do, that it is a wise and good thing for the profession to cherish a warm admiration for those of our number who make positive contributions to our literature and to science, and who really accomplish great results, I beg leave to present to the Academy a marble bust of Mr. Spencer Wells. It was on exhibition at the last exposition of the Royal Academy of London, and received high encomiums from the critics of the artistic journals. In the number of the *British Medical Journal*, May 3, 1879, is an editorial on the Royal Academy, in which, speaking of this bust of Mr. Spencer Wells, it says: 'This will certainly strike any one who examines it as a work remarkable for its artistic feeling and great realistic power. It is in the strongest sense characteristic, and indeed, is so powerful and remarkable a likeness as at once to challenge attention by its individuality and impressive resemblance. If any fault is to be found, it is perhaps that it is wanting in the look of genial amiability which distinguishes the great surgeon whom it reproduces, and modifies the otherwise stern, forcible features, which are here depicted with great power.' While making no pretension as an art critic, I may be permitted to say it gives the expression which he wears when making a diagnosis. It must greatly add to the interest with which it is examined, when I add that it is the work of one of our profession, the artist being the eminent ophthalmologist, Richard Liebreich, who, in addition to the laurels which he has earned in ophthalmology, in science, and in medical literature, must now add those of success in sculpture, which hardly any amateur has ever attained and most professionals might envy."

In connection with this, Dr. Barker loaned for the occasion a photograph of the beautiful home of Mr. Wells, a few miles from London, with an inscription by one of our most popular authors.

He also presented a beautiful presidential chair, with a reading-desk and table for the secretary.

In closing, he expressed the hope that the New York Academy would ever regard the occasion as a memorable era in its history, and would, from that evening, take a new departure which would be followed by a glorious career of usefulness and influence that would, in all future time, remain a monumental tribute to the high purpose, the wise forethought, and the noble liberality of Abram Du Bois, whose life-work had been specially devoted to the elevation of the profession, and improvement in medical education.

REMARKS BY DR. HENRY W. ACLAND.

The President then introduced DR. HENRY W. ACLAND, Regius Professor of Medicine, University of Oxford, who acknowledged heartily and sincerely the courtesy which never more kindly had been extended to him than on the present occasion, by requesting a stranger to begin the regular business of the evening immediately following the President's address. One objection he had to making remarks at that period in the meeting was, that it was not quite just to the senior member of the University of Oxford, then present, Dr. Gross, the great American surgeon, that he should not have been called upon first. However, with the President, he agreed that the two reports presented at the beginning of the exercises were full of interest; further, the President's address itself was full of matter for reflection, and he ventured the thought that the occasion was one of more than usual importance. For, hazarding the last remark, he made an excuse, believing it to be a just one, consisting in a picture of contrast between what he saw in this country, especially in the way of hospitals on a visit made twenty years ago, and what he had been permitted to see during his present sojourn among the American people. To reflect upon what this country presented twenty years ago, to read of the terrible struggle through which it had passed since that date, and to see how quickly the marks of destruction had been effaced, and ruined cities had been restored, was a matter of astonishment as well as of serious reflection and criticism. He then made special reference to what had been done in this country for the sick poor, and complimented the wealthy man, whoever he might be, who, out of his abundance, provided means for the amelioration of the suffering poor of the world.

With reference to the library, although having nothing of special interest to offer, he drew attention to what was the result of his observations during the last few weeks. First, must it not move us with some enthusiasm in looking forward to what the next generation will do with all the means at their command which this generation had provided for them.

Second, the great and vast work carried on by the medical profession in the United States was overshadowed by one difficulty, more or less present in almost all countries—the difficulty of producing an adequate combination among the numerous institutions. He, however, was not indisposed to think that in the future it will be difficult to contaminate the honorable members of the profession by those who are not entitled to publicly use the name physician. Medicine was a subject, not for statesmen nor for politics, but was a subject for humanity, and the progress of medicine concerned the entire world wherever sickness and suffering existed. With the existence of politics in his country they had nothing

to do, and they were making the attempt, and he thought there was no doubt of their success, to record all those who had a good medical education, so that with those they could have to do, and nothing at all with all the others.

Dr. Acland then passed to the subject of a National Board of Health, and was not prepared to understand how there should be any difficulty regarding the diffusion of knowledge from a central authority. No such difficulty was encountered upon the other side of the water, and to them it seemed incredible that such a difficulty should exist. Assuredly it was progress and benefit for all, and the hindrance of disease was one of the great duties of the medical profession. He then referred to our most valuable medical literature, and said that this country should have professorships created expressly upon the vast subject of comparative national health.

Finally, in the name of his countrymen, he thanked Dr. Barker for the honor he had done to his friend, Mr. Spencer Wells, and the Academy for the singularly pleasant illustration which it had given by this meeting of the unanimity of result which might be obtained by those who contributed of their wealth, and those who prosecuted their profession in the saving of human life.

MR. GEORGE W. CALLENDER sent a telegram announcing his inability to be present, on account of sickness.

The President then introduced the senior graduate of Oxford, and Honorary Fellow of the Academy, DR. SAMUEL D. GROSS, of Philadelphia.

Dr. Gross congratulated the Academy of Medicine upon the progress which it had made towards a great library institution, and wished it were in his power to add to the accumulation both in books and in money, but unfortunately he was nothing but a poor physician, a poor surgeon, and in that respect sharing the honor of most of those whom he addressed. He then recalled with melancholy feelings the name of Dr. John Watson, one of the founders of the Academy, and his object in so doing was simply to call the attention of the Fellows to the fact that the writings of the fathers of the profession are too much neglected at the present time. Who of us knew what we should of the writings of Hippocrates, Celsus, Ambrose Paré, Cullen, Gooch, the classical Pott, Richard Wiseman, John Hunter, and many others. He was quite sure that the time was not distant when great pains would be taken to present, either in the form of abstracts or the original works, the writings of the fathers of the profession to the rising generation. There were many useful kernels locked up in the writings of those men. He did not come with the view of making an address, but for the purpose of mingling with the Fellows of the Academy, and of shaking hands with and greeting some of his old friends, and, above all, to shake hands with his illustrious British cousin, Dr. Acland.

The President then introduced DR. JOHN S. BILLINGS, of Washington, D. C., who congratulated the Academy upon the evidences of progress by which they were surrounded. He gave a brief report concerning the Academy's other library, of which he had charge, and known as the National Medical Library at Washington. It contained about 70,000 volumes and about 100,000 titles for cataloguing. It was probably the best practical medical collection in the world, and that fact was due to the completeness of its folios of journals and periodicals. The value of a library depended very much upon the nature of its catalogue. The index catalogue of the National

Medical Library would give the names of authors and subjects, and there were probably about 8,000 subjects in the classification. The work on that catalogue was so far completed that no one man was necessary to its completion.

The President then introduced PROF. SHATTUCK, of Boston, late Regius Professor in Medicine in Harvard University, who made a few congratulatory remarks regarding the work which had been done by the Academy.

DR. WILLARD PARKER, Sr., ex-President of the Academy, was next introduced. He gave a historical sketch of the origin and rise of the New York Academy of Medicine. Of the 250 Fellows forty-five years ago, only 22 were living. Its present position was such as gave it a controlling influence upon the general hygienic condition and public health of the city. At the close of his remarks Dr. Parker offered the following resolution:

"Resolved, That the opening of the new Library Hall on the present occasion is a demonstration of the wisdom and zeal of the founders of the New York Academy of Medicine, an institution that has for its object the elevation, the education, and the culture of the medical profession."

DR. AUSTIN FLINT, in seconding the resolution, expressed his congratulations upon the many occasions for joyfulness which were offered. In the first place, the Academy had secured a home. In the next place, it had secured a home through the bountiful munificence of a member of the medical profession, although he should not feel like offering any opposition to a further donation of a few thousands or even millions of dollars from one who was not connected with the medical profession. He congratulated the Academy upon the presence of its distinguished guests—Acland, Gross, Billings, Shattuck, and others; and finally extended hearty congratulations upon the future, of which the present was an earnest.

The resolution was enthusiastically adopted.

The Academy then adjourned to partake of a bountiful collation provided by the President.

Correspondence.

EXOPHTHALMIC GOITRE.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Having under my treatment a case of exophthalmic goitre, I was naturally much interested in the article on that subject, in the number for September 20th, from the gentleman from Salt Lake City.

I should like to ask him whether he attributes his success to the monobromated camphor, quinine s., oxide of zinc, aloine, digitalis, belladonna, ipecac, phosphide of zinc, nux vomica, or the unguentum atropia, ung. iodoform, chloroform, oil of lavender, or the application of tinc. capsicum (B. P.)—or, after all, was it the emplastrum belladonnae three by six inches? Or did *vis medicatrix naturæ* have anything to do with it? I am very sorry he did not try galvanism, for with that addition the treatment would have been complete.

As I said before, I am much interested, and would like to cure my patient, if possible, without the expense of sampling the entire materia medica.

EDWIN WALKER, M.D.

EVANSVILLE, IND., Sept. 22, 1879.

EXPERIENCES OF A SUCCESSFUL PRACTITIONER.

III.

For some reason, my young friend, Dr. White, has the reputation among the people of being not over-busy. This is somewhat unfortunate for him, as most patients believe that a doctor who has not much business is good for nothing. But I tell all such that it is well for every youngster that he has abundance of time for study, as he will be so much the more capable in future. They all know how hard I studied when I was young, and how much I benefited by it.

It is astonishing how few can appreciate the necessity for this state of things. Not long since I had occasion to discuss the matter with the editor of our leading newspaper. He commenced the conversation by intimating that White was a rising man. I was delighted to hear this, as I saw my opportunity for doing a good turn. I told him that White was one of the most promising young men I had ever met. He was, in truth, a genius; otherwise, with the small opportunities he had for self-improvement and early education, he could never have amounted to anything. Still, I believe that there was a good deal in hard study, for Dr. White had really done more in that line since he put out his shingle than ever before. He was just commencing to see what he did not know, and now, not being bothered with outside business, he was with his books constantly.

As I always like to illustrate a point with a story, I told the editor some of my earlier experiences in practice when I relied entirely upon my books. This caused him much amusement, and with a twinkle in his eye, he remarked that I had not proved to him that White was a very safe practitioner, and that this studying business without practice was like learning to swim without going near the water. I saw the mistake I had made, and passed it off as best I could. I said to him, however, that there was no one's book knowledge that I would trust in preference to White's.

We then fell to talking about White's prospects, and, as two friends would naturally do, became quite confidential. In the course of the conversation I told him that I intended to do all I could for White, and that I would, irrespective of helping him, be glad to relieve myself of some of my large business. It is true no one helped me, and it was to hard study and hard work, with not even genius to help me, that I owed my success; still, I took a fancy to White, and I believed him to be too modest and too timid to help himself. As an illustration of White's timidity, or rather his want of self-reliance, I gave a detailed account of his first obstetric case. These cases I find are always interesting to a married man with an increasing family.

The case was one of ordinary labor in a primipara. The examinations were frequent, and the anxiety great. White took his Bedford's Obstetrics by the bedside and studied as he waited. Finally, before he knew it, the waters broke and the head came down. Here I drew a diagram to illustrate the anatomy of the parts. Finally, after waiting twenty-four hours, to the great neglect of his other patients (and here we both smiled), the child was born. With a sigh of relief, Dr. White said the trouble was over. In hurriedly cutting the cord, the end of the prepuce was severed; but as there was an hereditary tendency to club feet in the family, this was accidentally of some prospective benefit. The editor remarked incidental-

ly that he had witnessed operations of that sort, and had already written up the subject in his paper. But I must go on with my story. In due time the placenta was expected. The cord was presenting, and the mother-in-law was waiting. Soon Dr. W. imagined something wrong, and, as usual, sent for me. I was a hundred and forty miles away in consultation, and it was not until the next day that I returned, to find White still waiting for the placenta. When I arrived I made an examination, and found the after-birth perfectly loose and ready to drop out. Of course it was delivered in a moment, but I remarked that I never could understand why W. could allow his patient to be in danger of bleeding, and not have self-reliance enough to do what every medical student should have done under the circumstances. And yet White knew, I continued, as well what to do as I did, because he had often quizzed me in advance concerning not only all the probable, but improbable features of that case. As it was, the woman died of puerperal fever, without any apparent cause for it. Of course my former partner, who is a trifle jealous of White, said the result was owing to bungling treatment; but I assured the editor that this was not the case. He smiled; and I, out of politeness, reciprocated.

Just then White dropped in, looking tired, and feeling so, as he said, having been studying all day. I introduced him to the editor, and joked him concerning his extensive practice. This part of the conversation ended by my promise to send him five patients on the morrow morning. These, the editor facetiously said, W. could nurse for a month at least.

I believe I have not said anything of a new instrument of precision which I invented. Its description will come in very well here, as it had a great bearing upon my success in practice, and as I remember that I exhibited it on that evening to both the doctor and the editor. Of course I told the latter that it was not considered exactly professional to parade our wares before laymen, but inasmuch as he was a friend I knew he would keep matters to himself. The great difficulty with me was to give the instrument such a name as would convey an idea of its extended and varied usefulness. In fact, it would appear that nothing more was desired either by specialist or general practitioner. I remarked that in my experience with every "ill that flesh is heir to," I had felt the want of this instrument, and that for the sake of my profession and suffering humanity I was very glad that I had succeeded at least in adding my poor mite to the general stock. Here I discovered the editor taking short-hand notes, but he stopped as soon as I looked towards him, and I went on to say that the only impediment to the universal use of the instrument was the fact that no one understood how to adjust it but myself. However, it was my intention to do all I could to explain it to my brethren, so that they might profit accordingly.

The instrument is constructed of several parts, and extends, when the latter are adjusted, from the ears to the base of the skull. After I had taken the requisite time to put it together, I gave a detailed description of it to Dr. White, the editor being merely an accidental guest. I thought that the shortest way to a description of the apparatus was to give a history of its construction from the beginning. Accordingly I related to Dr. White a curious and obscure case of disease in a female, which commenced with an abrasion of the os and ended with leucorrhœa. It became quite necessary to examine the os, and so I thought

about inventing an instrument for the purpose. I saw "my instrument-maker," and he suggested that a new vaginal speculum might do the business. To make this part of the story short, he constructed for me my back-action, self-retaining pessiarized speculum. This was in the course of the following description shown to Dr. White and several other acquaintances, who from time to time dropped in. It consisted of a tubular arrangement, expanded at the bottom, trumpet-shaped, and so split as to open when required. It differed from all other instruments of its kind, from the fact that the rim of the trumpet extremity was colored red. Several gentlemen to whom I showed the instrument were very much pleased, and I accordingly offered it to the *MEDICAL RECORD* for publication.

When I found what a good thing I had, I commenced to make improvements. By the way, I forgot to say that the woman, by the use of this instrument, entirely recovered.

I further stated that I found, by attaching an ophthalmoscopic mirror to the extremity of the speculum, I could direct the light to the internal os. By this additional appliance, I discovered that a very large majority of obscure cases of female disease are traceable to a slight abrasion of the mucous membrane at this point. By the use of a magnifying glass attached to the end of the mirror, these abrasions could readily be seen, as well as the extremity of the Fallopian tube. I related five cases in point, by way of illustrating the necessity of diagnosing this condition. So satisfactory were these examinations, that I was encouraged to increase the adaptability of my instrument. I found, in attempting with my catheter attachment to explore the Fallopian tubes, that as soon as I reached the fimbriated extremity, and was ready to grasp the ovum, the sphincter vaginae relaxed and the speculum was no longer kept in place. I then explained the reason for this by referring to the wonderful sympathies of the vaso-motor system.

I accordingly devised an apparatus which extended behind, around the buttocks, and into the hollow of the back. This being accomplished, and the instrument being steadied, I could succeed, not only in getting the view I desired, but in securing spermatozoa in any part of the Fallopian tube. By this means I had been enabled, by examining the spermatozoa microscopically, to determine whether or no the patient's husband was predisposed to cancer, phthisis, impotency, neuro-asthenia, or insanity. In nine hundred and thirty-six cases which I had the opportunity of examining for suspected cancer I had found that eighty-five per cent. had a granular degeneration of the tail of the spermatozoa, corresponding in position to the fourth dorsal vertebra. In eleven hundred and two cases of suspected phthisis there was a fatty degeneration of the cervical portion of the tail; and in twelve thousand five hundred and seventy-nine cases of confirmed impotency there was a marked shrinking of the basilar portion of the head. The editor became very much interested at this point, but soon after lapsed into day-dreaming.

The results of these cases were so surprising that I was forced to attach a microscope to the mirror. This attachment, when advantage is taken of the hydraulic pressure of the bladder, can be so operated in connection with mirrors that the tissue of the ovary can be examined *in situ*. I then alluded to forty-three cases of prospective ovarian tumor which I had diagnosed by that means. I intend to report these cases at some future time, showing the advan-

tage of an early diagnosis and the use of my instrument.

At the risk of being considered too enthusiastic in my claims for this instrument, I described some other uses to which it was adapted. Its dilating powers were almost past belief. By the way, I stated that it, with slight modifications, could be used for the rectum, urethra, ear, throat, and with the Fallopian attachment had been employed in exploring the Eustachian tube and viewing the tympanum from the inside. I took occasion at this stage of the proceedings to say that I knew Roosa would be keenly alive to the advantages of this improvement. I may remark in passing, that since I sent him this part of my apparatus he has recommended all his ear cases to me. But this is only by the way. I further remarked that in a number of cases of stone, I had dilated the urethra so that I could introduce my hand into the bladder. This was an improvement on any method of procedure heretofore devised, inasmuch as when this could be done no crushing was needed. I explained, of course, how necessary it was to be careful in the manipulation, and to understand the anatomy of the parts, but in proper hands I thought the operation eminently safe. Willing to give White a chance to say something for himself, I asked him if he had ever done such an operation. To my surprise, however, he answered in the negative. Impressing him with the fact that the disease was a very common one, and sometimes not suspected by the patient, I alluded to my forty-ninth successful case.

I find that I am so much interested with this part of my subject that I cannot resist the temptation of continuing my description. The upper section of the apparatus extended from the lumbar region to the occiput, and supported an ear-speculum with ophthalmoscopic and thermo-electric attachments. Here, too, were a series of mirrors which corresponded in axes with those of the speculum, and which enabled the acute observer to examine the base of the brain and take the temperature of the pituitary body; at the same time he might be exploring the hitherto hidden recesses of the Fallopian tubes, or watching the progress of a calculus through the ureter. The latter could, however, never be done, unless the urethra was suitably dilated. I here exhibited a number of polished gas-pipes of different sizes which I used for the latter purpose.

By this time, although my audience was much interested, I confess that I was a little tired, but I concluded what I had to say by referring to the advantages of the back attachment as a spinal brace. I explained how all other braces were worse than useless, that plaster-Paris was likely to interfere with the secretion of pancreatic juice, and that my appliance was the only one founded on the correct principle of hydraulic pressure. I illustrated this on a hump-backed friend of the editor who happened to be present. As the evening was getting late, I only related one typical case of the many hundreds treated by me. This was a young man who had spinal disease and had not walked for many years. He was so feeble that when moved from one house to the other it was necessary to let him down through the roof. He was seen by several specialists, and all sorts of apparatus applied. In despair he sent for me, and after wearing my apparatus for a day he became so much improved that he joined a travelling circus. To prove this I read a very affecting letter from the patient, describing his great champion act upon the trapeze. The company then dispersed, and White and I were left to talk over professional prospects. * * *

PINE RIDGE ON THE HUDSON.

THE NATIONAL BOARD OF HEALTH AND HOMOEOPATHY.

TO THE EDITOR OF THE MEDICAL RECORD.

IN your issue of August 9th, "G." leaves the main point at issue in the beginning of this argument, and branches out rather extensively into the merits or demerits of the homoeopathic school of medicine. I am sorry to see that he shows such a sectarian spirit; it is simply against this, and for *true and honest liberality* in medicine that I am contending. To answer "G." properly, I should necessarily have to enter into detail, and the question is such a voluminous one, that I fear it would take up too much of your valuable space. I should be very happy to correspond with "G." upon these points or any other, however, and if he will send me his address privately, through your hands, I will do my best to answer him. "B."

DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In looking over some of the back numbers of THE MEDICAL RECORD, I noticed an article headed, "The Determination of Sex in Utero," in your issue of Nov. 23, 1878, in which Dr. Joseph Mudd speaks of Dr. J. W. Swift and his theory of "conception preceding menstruation," and says that in this case the product will be female and *vice versa*, while Dr. Napheys has an entirely opposite opinion. Further on, Dr. Mudd says that he has experimented in all twenty-nine times, and in all cases has succeeded in the production of what he looked for—male or female. Now I have just one question to ask the learned doctors, and I think it will knock their theories into infinitesimal atoms: At what period did copulation or conception take place when the product was twins—one of them male and the other female? Awaiting an answer, I remain

Your obedient servant,

T. C. WAITE.

PITTSBURG, PA.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from September 28th to October 4th, 1879.

CLEMENTS, B. A., Major and Surgeon. Granted leave of absence for four months. S. O. 228, A. G. O., October 2, 1879.

BROWN, H. E., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to leave the Department and apply for one month's extension. S. O. 205, Dept. of Texas, September 29, 1879.

O'REILLY, R. M., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to leave limits of Department. S. O. 145, Dept. of the South, September 26, 1879.

GRAY, W. W., 1st Lieut. and Asst. Surgeon. When relieved from duty at Ft. Colville, W. T., to proceed to Vancouver B'ks, W. T., and report to the commanding officer for duty. S. O. 123, Dept. of the Columbia, September 15, 1879.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, July 1st to September 30th, 1879.

ELLINWOOD, C. N., Surgeon, granted leave of absence for thirty days from August 12, 1879. August 5, 1879. Ordered to rejoin his station. Sept. 10, 1879.

BAILHACHE, P. H., Surgeon, relieved from duty at the port of Baltimore, and ordered to New York to relieve Surgeon Ellinwood, granted leave of absence. August 6, 1879. Detailed as Chairman Board of Survey, to examine damaged property at the New York Marine Hospital. September 23, 1879.

DOERING, E. J., Surgeon, detailed as Chairman Medical Board of Survey, to examine into the physical condition of an officer of the Revenue Marine Service. September 23, 1879.

GASSAWAY, J. M., Asst. Surgeon, detailed as member of a Board to report upon the advisability of establishing a marine hospital at Port Townsend, Wash. Ter. September 18, 1879.

FISHER, J. C., Asst. Surgeon, relieved from duty at Cairo, Ill., upon the arrival of Asst. Surgeon Carter, and ordered to report for duty to the Surgeon-General, M. H. S. August 25, 1879.

BROWN, F. H., Asst. Surgeon, granted leave of absence for fifteen days from July 12, 1879. July 7, 1879.

GOLDSBOROUGH, C. B., Asst. Surgeon, assigned to temporary duty in charge of the Service at the port of Baltimore, Md. August 6, 1879. Granted leave of absence for twenty days from September 22, 1879, by reason of physical disability. September 19, 1879.

IRWIN, FAIRFAX, Asst. Surgeon, granted leave of absence for thirty days from October 7, 1879. Sept. 18, 1879.

GLAZIER, W. C. W., Asst. Surgeon, to proceed to Georgetown, S. C., as inspector. July 17, 1879.

DANA, C. L., Asst. Surgeon, detailed as member Board of Survey to examine damaged property at the New York Marine Hospital. September 23, 1879.

CARTER, H. R., Asst. Surgeon, relieved from temporary duty at the port of Boston, Mass., and ordered to proceed to Cairo, Ill., and assume charge of the Service, relieving Asst. Surgeon Fisher. Aug. 25, 1879.

HEATH, W. H., Asst. Surgeon, to proceed to New York for temporary duty. July 15, 1879. Relieved from duty, port of Georgetown, D. C., and ordered to report to Surgeon Ellinwood, port of New York. July 26, 1879. Detailed as Recorder, Board of Survey, to examine damaged property at the New York Marine Hospital. September 23, 1879.

The following candidates having passed the required examination, were appointed Assistant Surgeons, July 21, 1879:

O'CONNOR, FRANCIS J., of the District of Columbia, (assigned to temporary duty, port of Georgetown, D. C., July 26, 1878. Ordered to Baltimore, Md., for temporary duty during the absence of Asst. Surgeon Goldsborough, September 20, 1879), and

PORTER, FREDERICK D., of Michigan, (assigned to temporary duty at the port of Detroit, Mich., July 25, 1879. Granted leave of absence for fifteen days from September 6, 1879. September 1, 1879.)

TREATMENT OF PHLYCTENULAR KERATITIS WITH THE GALVANIC CAUTERY.—The galvanic cautery is enjoying great prominence now in surgical therapeutics. It has been pushed to the fundus of the uterus, thrust into the trachea, and has touched upon nearly every anatomical point between. One of the last and most delicate of its uses is that to ulcers of the cornea. M. Legroux, of Paris, has employed it with much success for such affections. He has a very fine platinum wire which can be made red-hot almost instantaneously. With this he touches the ulcer and then drops on a little warm water. There is very little pain, and the results are promptly favorable.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending September 27, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Sept. 27, 1879.	0	81	81	3	18	85	0	0
Oct. 4, 1879.	0	11	34	1	14	20	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 1st to October 7th, inclusive, was 52, and the number of deaths that occurred was 29. The total number of new cases for this year to October 8th is 1,403, and the total number of deaths, 480.

CRUDE PETROLEUM IN CONSUMPTION.—M. M. Griffith, M.D., Bradford, Pa., writes: "A great many 'new remedies' and 'new preparations' are now before the public for consideration and sale. I would call attention to an old one, and cheap one. It is a well-known fact that consumption is almost unknown in the oil regions of Pennsylvania—and that it is never developed here. The only reason for it is, that we are daily consuming more or less of it in the water we drink and use in cooking purposes. The water obtained from the best wells and other sources, if left to stand over-night in an ordinary vessel will be covered in the morning with a scum of oil. It is evident that most of us consume more or less of it. Consumptive persons coming here from a distance soon find speedy relief from their lung difficulties, and rapidly gain flesh and strength. The climate of Bradford is the most unfavorable; the days in summer very warm, the nights cold and damp, and the weather very changeable, and also much wet and disagreeable weather—so it cannot be the climate that effects the change. The crude petroleum, no doubt, would long ago have become a popular remedy in lung difficulties, if it had not been for its very nauseating properties. I have sent a supply of the crude oil of a semi-solid consistency, that accumulates on the suckers and casings of the wells, which is readily prepared into pills by incorporating it with any inert vegetable powder, to a number of physicians and hospitals, with a request to give it a trial in their cases of consumption. Sufficient time has not elapsed to give a full report, but thus far the report has been very satisfactory. About fifty per cent. of cures are reported of acute phthisis. It afforded much relief in all cases, and the report in most cases is that it effected cures in all curable cases. I do not claim that it is a specific, but that it will do more good in chronic lung troubles than anything yet suggested.

"The crude is rich in hydrocarbons, and seems to have a special action toward the lungs, relieving cough, hectic, night-sweats, and flesh and strength is rapidly gained. I have had it under trial now during the last twelve months, and I can state that my faith in it grows stronger the oftener I prescribe it. The pills are made of the usual size, three to five grains. Three to five pills daily, or when the cough is troublesome, or as the case seems to require; relief

is apparent from the first. The curable cases were, to all intents and purposes, as well as usual in less than three months; many much sooner."

Petroleum has been known from a very ancient period. Herodotus refers to wells existing in Persia from time immemorial. It was known by the Seneca Indians of our own country as Seneca oil, etc.

The United States Dispensatory refers to it as a stimulating, anti-spasmodic expectorant and diaphoretic. It stands high as a domestic remedy in the oil-fields. It is to be hoped that the profession will thoroughly investigate the matter, and give their experience of this cheap and valuable medicine.

OPENING OF THE WINTER SESSIONS AT THE PHILADELPHIA SCHOOLS OF MEDICINE, DENTISTRY, AND PHARMACY.—In the University of Pennsylvania, Theodore G. Wormley, M.D., LL.D., Professor of Chemistry, made a general address introductory to the one hundred and fourteenth course of lectures in the medical department, and the second course in the dental department, on Wednesday, October 1st, in the hall of the medical department. A large number of the college alumni, as well as the faculty, were present.

On the same day, in the Pennsylvania College of Dental Surgery, Twelfth and Filbert Streets, Dr. Henry C. Chapman, Professor of Physiology, delivered the opening lecture of the course, and the Seventeenth Annual Session of the Philadelphia Dental College was opened by Prof. J. Foster Flagg, D.D.S.

Roberts Bartholow, M.D., LL.D., late of the University of Ohio, Cincinnati, and Professor of Materia Medica and Therapeutics in Jefferson College, delivered, on Wednesday evening October 1st, in the amphitheatre of the College Hospital, Sansom Street, above Tenth, the introductory lecture to the fifty-fifth session. He was introduced by Ellerslie Wallace, M.D., Dean of the Faculty. After paying a tribute to the memory of his predecessor, Dr. Jno. Biddle, as a teacher, a writer, and a President of the American Medical College Association, Dr. Bartholow spoke at some length upon "The Present State of Therapeutics" (printed under head of "Original Lectures" in this number).

Upon the conclusion of his remarks, Professor Bartholow, who began, on that evening, his official connection as a member of the College Faculty, was warmly welcomed by the students, and presented by them with a handsome floral design and a service of crystal.

On the afternoon of the same day, Mr. Charles Bullock, Vice-President of the Philadelphia College of Pharmacy, Tenth Street, above Arch, briefly introduced to the students and faculty, Samuel Philip Sadtler, M.D., whose address reviewing the field of pharmacy and treating practically of the various chemicals, etc., opened the fifty-ninth annual session of the institution. This is Prof. Sadtler's first year as a member of the College Faculty, and the students, as a mark of their appreciation of his worth, presented him with a beautiful floral design. The college opens this session with a large class, which has been increased by 175 matriculates, who passed their examination yesterday.

B. B. Wilson, M.D., Professor of Principles and Practice of Surgery, delivered, on Thursday afternoon, October 2d, the general introductory lecture to the session of 1879-80 in the Women's Medical College of Pennsylvania.

(The medical class at Jefferson College this year numbers over 600 students, and the matriculating

class at the Medical School of the University of Pennsylvania has thus far 125 members.)

THE NORRISTOWN, PA., STATE HOSPITAL FOR THE INSANE.—Work upon the new State Hospital for the Insane, at Norristown, is progressing satisfactorily. All the buildings are under roof except the Administration Building, which has had the second story recently put on. Five of the ward buildings are virtually completed, including the steam-heating apparatus. The six boilers are nearly ready to be placed in position, and it is expected that steam can be turned on in another month. The floors of the wash-house and kitchen are to be of stone, instead of lithogen, with which the corridors have been paved. It has been thought advisable to secure gas from the Norristown Works, instead of building gas-works, and a contract has been entered into with the Norristown Works for a supply at two dollars per thousand feet. In view of the probable completion of the buildings by the 1st of December, the Secretary of State has been requested to notify the Governor that the time has arrived for the appointment of the trustees authorized by law.

THE NEWLY APPOINTED QUARANTINE IN THE DELAWARE RIVER.—At the weekly meeting of the Philadelphia Board of Health on Tuesday, September 16th, the joint committee, composed of the Lazaretto Committee, in conjunction with the officers of the Board, to whom was referred the proposition of the National Board of Health for the establishment of a quarantine station at the Delaware breakwater, presented their report. After reciting the facts that the proposition grew out of an application for a remedy to prevent boarding-house runners from getting aboard vessels coming up to the city, and after reciting the order itself, the report proceeds as follows:

"This order may be looked upon in three aspects. First. Does it meet the difficulties complained of by our Board? Second. Are there any grave objections to its methods? Third. If the latter is the case, have we any substitute to recommend?"

In regard to the first point, it is to be said that it entirely meets the difficulties complained of, so that vessels possibly infected would be completely isolated on the passage up the river to the vicinity of the present quarantine station, as desired.

"But, to come to the second point, the order provides for a new boarding station, and this appears to us an objectionable feature. According to the text quoted above, this is 'to be established at the mouth of the Delaware River, in the vicinity of the Breakwater, or at a point to be approved by the National Board of Health.' In the vicinity of the Breakwater, we are informed, there is no good anchorage for large vessels, ocean steamers for instance, and should such arrive there after sunset they would be obliged to cruise about all night, to their great danger, if the wind was easterly, and to the very great annoyance of the passengers under any circumstances. Farther up the bay the channel runs at some distance from the shore, giving no point where vessels could lay to as conveniently as higher up the river. No eligible site presents itself until within thirty miles of the Lazaretto, and when such is found, a new objection arises, namely, it would be burdensome to the commerce of the port to subject vessels to the delays and inconveniences of an additional boarding station. To learn the sense of those most directly interested in the commerce and trade of the city on this important question, we addressed notes to the Maritime Exchange, Commerce Exchange and Board of Trade, calling their at-

tention to the matter, and hoped to lay their views before the Board with this report, but, as yet, have not received them. The press has, however, spoken strongly against the project."

With reference to the third point, we would recommend, instead of the enforcement of the order, that the National Board of Health place a patrol boat on the river to run between Fort Delaware and the Lazaretto, the officer in command of which shall arrest any persons found communicating with inbound vessels subject to quarantine and bring them and their boats to the quarantine station, or simply to place an officer with the same powers on the revenue cutter doing duty on the river.

In conclusion, we offer the following:

Resolved, That a copy of this report be sent to the National Board of Health and that the honorable Board be respectfully requested to adopt either of the two measures above suggested as a substitute for their order establishing a quarantine of observation upon the Delaware.

The report was adopted and the Board adjourned.

NEW YORK AND NEW JERSEY QUARANTINED.—Portugal has issued a decree establishing quarantine against the States of New York and New Jersey. The decree is based, of course, upon erroneous information, and is very injurious to our commerce there, as well as being extremely absurd.

TREATMENT OF METRORRHAGIA BY PLUGGING THE CERVICAL CANAL.—Dr. Henry Bennett, in the *British Medical Journal*, describes the above method of treating metrorrhagia, it being one that he proposed nearly twenty years ago, and has frequently used since. He brings the cervix into view, and passes into it two or three small pieces of cotton tied by a thread, and then covers the whole cervix with two or three larger pieces, which are left in close contact with the os upon withdrawal of the instrument. In this way he rarely fails to stop the bleeding. The cotton is not treated with any styptic, as that is unnecessary. The cases which indicate this method of procedure are those in which hæmorrhage persists after the entire removal of local disease, in enlargement of the uterus, or where small polypi or polypoid granulations exist, or in the hæmorrhagic habit. The superiority of this method over that of distending the vagina with tampons is claimed to be very great.

FREE COURSE OF LECTURES ON DISEASES OF THE SKIN.—Dr. Bulkley will give a third course of lectures on diseases of the skin in the Pathological Amphitheatre of the New York Hospital, 7 West 15th Street, Wednesday afternoons, from 2.30 to 3.30 o'clock, commencing Wednesday, October 8, 1879.

BOOKS RECEIVED.

MEDICAL AND SURGICAL HISTORY OF THE WAR OF THE REBELLION. Part II. Medical Volume, first issue. Surgeon-General's Office, Washington, D. C. 1879.

THE NATIONAL DISPENSATORY, by ALFRED STILLE, M.D., LL.D., and JOHN M. MAISCH, Phar. D. Second edition. Philadelphia: H. C. Lea. 1879.

STUDENTS' POCKET MEDICAL LEXICON, by ELIAS LONGLEY. Philadelphia: Lindsay & Blakiston. 1879.

HISTORY OF MEDICINE IN NEW JERSEY, AND ITS MEDICAL MEN, FROM THE SETTLEMENT OF THE PROVINCE TO A.D. 1800, by STEPHEN WICKES, A.M., M.D. Newark, N. J.: Martin R. Dennis & Co. 1879.

Original Lectures.

CLINICAL LECTURE

ON A

TRANSVERSE LESION OF THE SPINAL CORD IN THE DORSAL REGION.

DELIVERED AT THE PHILADELPHIA HOSPITAL,

By CHARLES K. MILLS, M.D.,

NEUROLOGIST TO THE HOSPITAL.

(Prepared for THE MEDICAL RECORD.)

THE patient, R. M—, is a mulatto forty-one years old. On two occasions, more than twenty years ago, he had chancres, but he has never had any of the usual manifestations of secondary or tertiary syphilis. He claims that he was not a hard drinker and was not addicted to sexual excesses of any kind. He has no history of an injury. He comes from a long-lived family, and his general health was good until eighteen months ago, when, without any known exciting cause, he was taken with a feeling of soreness and weakness of the left foot, which soon extended as high as the left knee. In two weeks the right leg below the knee was similarly affected, and within a month he began to experience pain in the lower part of the back. For a few weeks before the paretic symptoms set in, the left foot would now and then feel numb and cold. Gradually the loss of power in his lower extremities and the unpleasant sensations in both legs and back grew worse. Occasionally he had involuntary twitching of the legs. Four months after the first positive paretic symptoms, he began to have the sensation of a band or girdle around the waist.

In six months from the first appearance of the sensori-motor symptoms in his left foot he was compelled to take to his bed. His legs were now quite helpless; he had constant dull pain in his back; the girdle sensation and a feeling of dragging in the abdomen were constantly present, and very annoying; passages from bladder and bowels were involuntary; and he had marked symptoms of abnormal reflex activity, such as a curious jerking of the knees, and retraction of the feet on slight irritation. He does not think that he had fever; he had no mental manifestations; no facial or ocular troubles; no symptoms whatever referred to the upper half of his body. No bed-sores made their appearance.

He remained in bed several months and took large quantities of iodide of potassium, from which he seemed to derive considerable benefit. Severe cauterization of his back was resorted to twice, and also apparently did great good. Under its influence the girdle sensation disappeared, the pains in his back improved, he partially regained control of his bladder and bowels, reflex excitement largely subsided, and his legs recovered some of their strength.

During the last six months he has made some improvement under the use of specific and tonic treatment.

Let us examine him as he sits in his invalid chair, for he is unable to stand or to bear any weight on either leg. His general appearance is good; his face not expressing any special care or suffering, and his body and limbs not showing any marked wasting. Nothing wrong can be detected about the head; his sight, hearing, and other senses are unaffected. The only symptoms which he has had in the parts of the

body above the waist have been feelings of numbness or stinging in the little and ring fingers of the left hand; several months since he had sensations of this kind which would last two or three hours and then pass off, to return again after the lapse of hours or days.

In answer to my questions, he says he has no longer the sensation of a cord around the waist. When it was present—a point of some interest in locating the level of his myelitic lesion—it was immediately below the umbilicus. Examination of the spine by pressure, percussion, heat, and cold, and electrical tests, elicits no response—no shrinking or other manifestations of pain. He now has fair control over his bowels and bladder.

With him, as with many other similar cases, I find considerable difficulty in making quantitative determinations in regard to sensation. Touching his feet or legs gently at any part with the points of the æsthesiometer, twitchings are produced, as if both sensation and reflex action were exalted; at the same time his answers in regard to the distance apart of the two points of the instrument are very irregular and confusing. He declares, however, that he feels the impressions very acutely. Sensibility in the right leg and foot appears to be slightly better than in the left. No retardation of conduction for pain, touch, tickling, pressure, or temperature, can be determined by the ordinary tests.

Both lower extremities are almost absolutely paralyzed; a little power being retained in the left limb. As helpless as are his legs, however, they do not show any marked trophic or vaso-motor changes; wasting is comparatively slight, and no ischæmia, eruptions or bed-sores are present.

Electro-contraction is retained; active quiverings and contractions are produced with a faradic current of moderate strength. I am also able to demonstrate on this patient the so-called "diplegic contractions." Applying one moistened rheophore to the spine in the dorsal region, and the other along a nerve-trunk in the leg, contractions are caused not only in the muscles on which the electricity is directly acting, but also in those of the other limb; sometimes a strong current applied to one thigh will cause contractions in the corresponding muscles of the other side. These electrical phenomena, as also the reflex manifestations to be next considered, probably indicate some vascular excitement at the seat of lesion, and also point to a nearly complete transverse destruction of the cord.

This patient has already furnished us with several studies of much interest, but his most striking symptoms have reference to reflex action. In cases of spinal disease, the reflex activity of the cord may be normal; or, what is more likely, it may be either diminished or increased. Reflex action may be studied clinically in several ways. Irritation of the skin is an old and common method of investigation; we can resort to tickling, or to pricking with a needle or the compass-points. The soles of the feet are favorite areas for these experiments; but the palms of the hands, the belly, the thighs, and, indeed, in pathological cases, almost any part of the body affected by the spinal lesion will answer. Annoying reflex actions sometimes take place during the performance of such operations as catheterization, but I would hardly recommend the use of the catheter for studying reflex phenomena. Within a few years the so-called tendon reflexes, or tendinous reflexions, have been attracting a large share of attention. These reflexes are certain responsive movements which are called forth by mechanical irritation of tendons: by striking, for instance, the patellar ligament, the tendon of the quad

riceps extensor, the tendo-Achillis, etc. They have been carefully studied by Westphal, Erb, Gowers, Hamilton, Gray, and others.

Touching the sole of either foot of this patient causes the foot and leg at once to be drawn up somewhat violently; and gently pricking the skin with the compasses at almost any point on the legs causes active but irregular muscular twitchings or jerking of the entire limb. The skin reflexes are exalted.

Taking up the tendinous reflexions, I will first direct your attention to the patellar ligament, the most convenient point for investigating these phenomena. One leg can be thrown over the other so as to elevate the foot from the floor, or, what is better, the patient can be seated on a table, or the side of a bed, so as to allow his legs to dangle freely. The limb should be perfectly relaxed, and if the individual has any will-power over it, he should be directed to not exercise this volition, but to keep his mind as nearly as possible in a negative condition.

I lightly tap the ligamentum patellæ, first of one side and then of the other, with a single finger, and a quick forward propulsion of the foot and leg results; repeating the tap again and again, the movement is rendered more violent and tends to become a continuous but irregular vibration. With the ulnar edge of the hand I next strike the tendon of the quadriceps extensor cruris, and, with a jerk, the leg is again extended upon the thigh. Percussion of the tendons of the adductors, of the gracilis, and of the tibial muscles, etc., causes a motor response, although not of as violent a character as that elicited from the patellar and quadriceps tendons. A curious reflex in this case is one which I bring out by tapping the testicle, and along the line of the spermatic cord near the pubis, a slight retraction of the testicle takes place, probably due to the action of the remaining fibres of the cremaster muscle. Percussion along the spine of the tibia, you also observe, calls out the reflex action of the quadriceps almost as well as striking upon its own tendon.

Placing my hand under the ball of the patient's foot, I suddenly press the foot upward. The result is remarkable. At first the foot is affected with a general tremor which passes upward; a moment later it begins a sort of wagging movement; soon the entire leg is involved, and is tossed about in the most fantastic manner. Performing the same experiment upon the other foot, both limbs are now the victims of this irregular shaking, jerking, and swinging, better than chorea conveying the idea of a true "insanity of motion."

The act of forcing the fore-part of the foot upwards, in the manner which I have just shown, is what is known as "passive dorsal flexion." The movement which results is the foot- or ankle-clonus, or "foot-phenomenon" of Westphal. You could not have a better example of it. The tendo-Achillis is put upon the stretch; it is irritated by the state of tension into which its fibres are thrown; exaggerated reflex actions are called forth, and these cause alternate flexions and extensions, due to successive contractions and relaxations of antagonistic muscles. The phenomenon is similar in many respects to that described by Brown-Séquard and Charcot as spinal epilepsy. In order to call out the movement, it is sometimes necessary, in addition to forcibly flexing the foot, to strike upon the tense tendo-Achillis with some object, but here this is not required; mere flexion of the foot starts it on its convulsive round.

The symptoms presented by this case would seem to point, with scarcely a doubt, to a transverse lesion of the spinal cord above the lumbar enlargement,

probably in the mid-dorsal region. The history of the case is that of a gradually supervening paralysis of both legs, with the cincture sensation, pain in the back, paralysis of bladder and bowels which partially passed off, and abnormal reflex activity. The lower extremities, although paralyzed, are not markedly wasted; they exhibit neither vaso-motor or trophic changes of any moment, and their muscles respond well to electricity, showing that the lumbar enlargement of the cord—the region in which originate the important nerve-trunks of the lower limbs—remains comparatively intact. The position of the cincture or girdle feeling, at or just below the umbilicus, would also indicate a lesion in the middle, or from the middle toward the lower end of the dorsal region. A careful study of this symptom alone will sometimes enable us to arrive at a tolerably accurate idea of the seat of a spinal lesion; it probably indicates the highest sensory nerves involved in the lesion. In cases of dorsal lesion, also, partial control of the bladder and bowels is not infrequently regained, as in this patient. The slight numbness or stinging experienced for a short time in the left little and ring fingers was probably caused by a temporary extension upwards of congestion or inflammatory action from the main lesion to the lower cervical region. The impossibility of any permanent injury to the cervical cord having taken place is clearly shown by the absence of symptoms which would indicate involvement of the brachial plexus, and also by the fact that respiratory, circulatory, and oculo-pupillary manifestations are wanting.

A theoretical explanation of the abnormal reflex actions exhibited in this case is not hard to give. Reflex centres are probably situated in the gray matter of the spinal cord, and these are dominated by the brain. Excessive reflex may be due to unnatural excitability of these, or to a calling off of the restraining or inhibitory influence of the cerebrum. The apparently spontaneous movements experienced early were probably indications of an acute or subacute inflammatory condition. At present the same cause may be partly operative; but mainly the reflex actions are wayward and excessive, because a limited but destructive lesion has separated the lower reflex spinal centres from the inhibitory apparatus of the brain.

It is much easier in this case to locate the lesion than it is to arrive at a positive conclusion as to its nature. The man has a clear history of syphilitic infection; specific treatment has been of service, and it is altogether likely, therefore, that you have here some form of syphilitic disease affecting the spinal cord. It is not necessary to the explanation of the symptoms for the disease to be intramedullary. Any pathological condition or process that would cause limited compression and secondary myelitis of the mid-dorsal cord might give rise to the phenomena here manifest. A careful study of the history of the case leads to the idea of a gradual compression or destruction of the cord from its anterior surface. Vertical sclerosis, atrophy of the gray matter, vertebral periostitis or exostosis, caries, meningitis, and tumors of the dura or pia-mater, or of the cord, are among the spinal affections which may owe their origin to syphilis. An intra-meningeal growth would account pretty satisfactorily for all the symptoms.

The treatment so far instituted in this case has been chiefly anti-syphilitic in character. A year ago he took iodide of potassium with advantage. Since coming into my hands mercurial inunction has been pushed until constitutional effects were produced, and more recently he has been again taking iodide of

potassium. The actual cautery has also been used on several occasions with apparent benefit. The method of cauterization which I prefer, as you well know, is the superficial burning with a white-hot iron. I have found in this, as in very many cases of chronic spinal disease, occasional dry or wet cupping of the spine to be of service. Galvanization of the spine has also been tried, but does not appear to have done any perceptible good. Faradization was used for a short time with advantage, but ceased to be of service after a few applications. Tonics have also been given. The patient is undoubtedly in a better condition now than he was several months since. Then he was confined to his back, he suffered from rachialgia, his passages were involuntary, etc. Now he is able to be up in a chair, and all of his symptoms have abated in intensity.

Original Communications.

INTERNAL URETHROTOMY AND LITHOTRIPSY

AT THE SAME SITTING, IN A PATIENT 79 YEARS OF AGE; WITH REMARKS ON RAPID LITHOTRIPSY, AND ON THE EVACUATION OF DETRITUS FROM THE BLADDER.

By J. W. S. GOULEY, M.D.,

PROFESSOR OF DISEASES OF THE GENITO-URINARY SYSTEM IN THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK, SURGEON TO BELLEVUE HOSPITAL, ETC.

For the facts connected with the previous history of the case detailed below, I am indebted to Dr. Ramon L. Miranda, who obtained them from the patient. I take great pleasure here in making my acknowledgments to Dr. Miranda for his valuable aid in the management of the case.

Doctor —, an eminent surgeon of Havana, Cuba, seventy-nine years of age, of spare build, but of great energy, has of late years become invalided on account of dysuria and of vesical irritation; but he has nevertheless been able to perform his usual labors, and his general health has suffered but little. Without antecedent urethritis, he has had symptoms of urethral stricture ever since 1836, when J. Cloquet, of Paris, detected a narrowing in the pendulous portion of the urethra, for which, however, nothing was done, and he seldom suffered more than ardor in urination, principally during the night, or after having taken more than his wonted exercise.

On the 80th of June, 1878, after an obstinate constipation of four days, he was seized with complete retention of urine, from which, in twenty-four hours, he was relieved by the introduction of a gum catheter No. 8 (French scale), which was kept in for three days. Its removal caused much pain, owing to alteration of its surface by the urine. It was replaced by another catheter, which was renewed every day, but retained only from four to eight hours. This was continued eighteen days, and the bladder regularly irrigated with sundry solutions—of acetate of lead, phenic acid, etc. Baths, cataplasms, leeches to the perineum, etc., were also employed. From that time he began to experience, during each act of urination—which was unduly frequent and difficult—much pain at the anus and in the urethra, especially in the fossa navicularis, and the urine became purulent. These symptoms have ever since persisted with more or less severity. He has

never had pain in consequence of riding on rough pavements, and twice he rode one mile in a carriage to see me, without suffering the least inconvenience. He had consulted many surgeons, most of whom were of opinion that his troubles were caused by prostatic enlargement and urethral strictures. About a year before I saw him, gradual dilatation was suggested, and then internal urethrotomy, which was done in September, 1878, with Maisonneuve's urethrotome. The incision made was very superficial ("nothing more than a scarification"), and a "straight metallic sound, No. 11 (French), was introduced with much force—causing intense pain—without entering the bladder." In the course of an hour the extravasated blood in the surrounding connective tissue formed a tumor on the right side of the body of the penis, extending to the pubes; this hæmatoma gradually disappeared, but left at the base of the penis an induration which has remained very tender to the touch, and which has seemed to the patient to be the starting-point of the great pain he has suffered while urinating.

Continuous dilatation was afterwards tried with Beniqué's catheters, from No. 6 to No. 1, changing the instrument every twenty-four hours. During this course of treatment of twenty-one days there was the most profuse suppuration, and finally on the twenty-first day a free hæmorrhage. From that time until July, 1879, a sound was introduced every second day, but without the slightest benefit. The only relief he experienced was from frequent vesical irrigations with tepid water. Meanwhile the bladder was several times explored, but no calculi were detected; still the patient himself thought that there might be stones. Once the bladder was injected with a strong solution of nitrate of silver on account of "recto-vesical neuralgia." This he thinks made him much worse. He finally concluded to come to New York to be treated, and on July 21, 1879, called upon me at the suggestion of, and with, Dr. Ramon L. Miranda. I detected, with a soft bulbous bougie, three urethral strictures—one in the fossa navicularis, the second at two inches and a half, and the third at four inches from the meatus; this last admitted No. 6 (Eng.). I made dilatation to No. 8 steel sound, and, wishing to ascertain whether he could empty his bladder, I passed a No. 6 (Eng.) Mercier soft catheter, and as soon as it entered the bladder grated against a hard body, which I thought was a stone; very little urine flowed—not more than an ounce—and no bleeding ensued. Rectal exploration revealed hypertrophy of the prostate to double its normal size. There was no median prostatic hypertrophy, as afterwards ascertained. My mind was made up as to what should be done, but as the patient was very nervous and timid from his previous sufferings, and as, besides, he required preparatory treatment, I said nothing of the necessity of a cutting operation, but simply advised daily vesical irrigations, and the introduction of sounds partly to dilate the strictures, partly to blunt the extreme sensitiveness of the urethra, and enable me the better to explore the bladder. Full doses of quinine were prescribed. On the following day I passed a No. 8 sound, and as it entered the bladder its point came in contact with a calculus. Dr. Miranda took the sound, and also felt the stone. I then introduced a Mercier catheter and irrigated the urethra and bladder with a solution of biborate of soda. This was repeated daily until August 5th. Twice during that time I was obliged to push back with the sound a calculus which was engaged in the urethro-vesical orifice, where it had been creating much irritation for several hours.

Nos. 9, 10, and 11 sounds caused much pain, which was, however, well enough tolerated, and no rigor, no hæmorrhage, at any time followed the use of these instruments.

He rested each day, but was able to call at my house to be catheterized. I thought further attempts to dilate the strictures out of the question, as they were extremely resilient, and advised internal urethrotomy and lithotripsy at the same sitting, and the 7th of August was appointed for the day of operation. A cathartic on the 6th, and an enema on the morning of the 7th were ordered. Assisted by Drs. Miranda, Lewis, Roberts, Sayre, Jr., and Goodwillie, who administered nitrous oxide, I made free division of each of the three strictures, from behind forward, with Civiale's urethrotome, and was able to introduce a steel sound ten millimetres in diameter; then, with a flat-bladed lithotribe, seized and crushed four phosphatic calculi, one of half an inch, and three of three-eighths of an inch in diameter. I also caught and crushed seven fragments (some of these may have been small stones) each of a quarter of an inch in diameter, and four of one eighth of an inch—fifteen seizures in all, including the four stones. The lithotripsy proper occupied less than five minutes, during which time the lithotribe was twice introduced, and brought out charged with detritus. I noticed, while passing the instrument, that its point became engaged in the mouth of an old false route on the right side in the sinus of the bulb, but by altering its direction it went in without further impediment, and in the subsequent introductions of all instruments I always succeeded in avoiding this cul-de-sac. There were columns in the bladder, from hypertrophy of the muscular coat. Aspiration with Bigelow's elastic pear was then made, but very little detritus was brought out. The entire operation—that is to say, the exploration, the urethrotomy, the catheterism, the aspiration of detritus, etc., lasted twenty-eight minutes. There was very little loss of blood, and the immediate effects of the anæsthetic passed away rapidly. In two hours the bladder was emptied by means of a catheter, and in three hours after, catheterism was again done with a No. 14 (Eng.) Mercier gum catheter, which was then plugged and retained for seventeen hours. Every three hours the plug was removed, and the urine which flowed was at first fetid and tinged with blood, but soon became clear. The catheter was replaced by another, which was retained only seven hours. There was some tumefaction of the penis, which on the fourth day entirely disappeared. He was up on the seventh day. Nine grains of detritus had been obtained, partly from the beak of the instrument, partly by aspiration, and in the first two or three days eight grains came away through the catheter. Probably an equal quantity was lost, as he urinated spontaneously several times. Free doses of quinine were administered during the whole treatment, and the bladder was frequently irrigated with a solution of bichloride of soda. As on the day he got up (Aug. 14th) he had a considerable amount of irritation at the urethro-vesical orifice, and the old ardor at the anus and in the fossa navicularis, I made an exploration of the bladder with a flat-bladed lithotribe, and seized and crushed three fragments (or small stones) of a quarter of an inch in diameter, brought out a beak full of detritus, and, with what was passed through the catheter, obtained in all eight more grains (the detritus was never weighed until it was quite dry); at the end of two days no more detritus came away. On August 19th I sent him to take a ride of four miles on rough pavements; when he

returned the urine was slightly tinged with blood, and he felt the old pains in the perinæum and urethra. On the 20th I made a third exploration of three and a half minutes, and could find only two fragments, one of a quarter, the other of one-eighth of an inch, and brought out a beakful of detritus, which, when dry, weighed three grains. The total amount of detritus collected weighed, when dry, twenty-eight grains. After this he had no more symptoms of stone. Still, in two days I made another exploration, and in two more days a final and most thorough examination with the lithotribe, without finding any trace of calculous concretions. Steel sound No. 15 (nine millimetres in diameter) had been introduced every second day, and he was soon able to pass it himself. During the whole of this time he never had a rigor, nor indeed any other untoward symptom. On account of some remaining urethro-cystitis, I several times irrigated the whole urethra and bladder with a very weak solution of nitrate of silver, which produced the desired effect.

Before his departure he was able to urinate in a large jet, which was well propelled for a man with a large prostate, and on several occasions, immediately after urination, I passed a catheter, and only two or three drachms of urine came away. The patient sailed for Havana on Sept. 5th, in better condition than he had been for a year at least, promising to empty his bladder twice daily, and to make an irrigation with the bichloride solution, and in case the urine should become alkaline, to use acetate of lead, as the principal means of preventing the recurrence of phosphatic calculi. Once a week he is to introduce his No. 15 steel sound, to prevent recontraction of the strictures.

COMMENTS ON THE CASE.

I have selected for comments a few from the many points of clinical interest which this case possesses.

The patient was known to have an ancient urethral stricture, which had contracted so slowly as to give rise to but slight dysuria at the end of forty-two years, and when at last (in June, 1878,) retention of urine occurred, it was caused not by the stricture, but very distinctly by acute engorgement of the already hypertrophied prostate, resulting from the obstinate constipation of four days.

The two courses within a year of continuous dilatation had the effect of making the strictures worse, more resilient, though a certain amount of dilatation was maintained by frequent catheterism. Nevertheless, in the end of July I found it impossible to dilate them beyond No. 11 (English scale). This, with the great sensitiveness of the canal, rendered ordinary lithotripsy impracticable. It does not appear that cystitis existed prior to June, 1878; this complication was provoked by the presence of the catheter, which was retained three days, and from that time date the vesical symptoms which became so distressing in 1879.

I have every reason to think that the age of the stones which I crushed in August, 1879, was thirteen months, and firmly believe that their nuclei were the concretions which fell from the retained catheter at the moment of its withdrawal. But it is known that such phosphatic calculi grow rapidly, and it might be asked whether in a year's time they would not have attained a greater size? Without intervention, most decidedly yes; they would have been each at least one inch in diameter but for the fact that the urine was drawn off and the bladder for a long time irrigated every day, and occasionally too with a solu-

tion of acetate of lead, than which there is no better reagent for the disintegration of phosphatic calculi. This, it seems to me, is a sufficient explanation of the diminutive size of the stones.

Two symptoms of stone were wanting in this case: frequent hæmaturias, and pain while riding in a carriage; but these symptoms are often absent in the aged. Two operations were indicated: internal urethrotomy and lithotripsy. Thinking that lithotripsy would be impracticable without the urethrotomy, principally on account of the great urethral irritability, I decided to combine the two operations, and, with the aid of an anæsthetic and of aspiration, hoped to be able to do them both at a single sitting of not more than twenty minutes, but succeeded in extracting only a very small amount of detritus, and two additional sittings were necessary to complete the operation. These sittings were, however, very short and well borne, though it was difficult to seize the last fragments owing to the bladder being hypertrophied and columnar, and neither anæsthetic nor aspiration was used. The aspiration was here a failure, but I am sure that if I had persisted and made another introduction of the lithotribe I would have succeeded in removing the entire detritus; but I did not wish to prolong the sitting.

In another case I also failed to extract the detritus by aspiration, but it was because there existed a false route in the deep urethra which absolutely prevented the passage of any of the catheters belonging to Bigelow's aspirator. The lithotribe was, however, always introduced with ease and all the detritus evacuated through one of Tiemann's India-rubber catheters. Six sittings were required, and the patient made an excellent recovery without having suffered the slightest untoward symptom.

In a third case, on account of a small oxalate of lime calculus which had caused inordinate vesical and urethral irritation, I employed anæsthesia, and aspiration with Bigelow's bag, and at one short sitting completely relieved the bladder of the detritus made by several crushings of the hard concretion.

Long sittings are justifiable in many cases, but I would not be willing to resort to them in aged persons, such as the patient of seventy-nine years who is the subject of these remarks; in like cases I believe that several (three, four, or five) sessions of one or two minutes, without anæsthesia, are safer than a single long one of an hour or more, with the aid of an anæsthetic.

RAPID LITHOTRIPSY.

Among the requisites for the successful performance of lithotripsy is an ample urethra, or one that can be safely and easily rendered so, that the detritus may be expelled or extracted without inflicting serious injury to the canal. This operation was for a long time believed to be contra-indicated in cases of narrow or resilient strictures of the deep urethra; but since Heurteloup gave the first impulse to rapid lithotripsy and showed its applicability to such cases after dilatation or internal incision, a change of opinion has gradually come about, so that at present it may be considered good surgery, in case of obstinate stricture complicating a calculous affection, to make division or internal urethrotomy, and at the same sitting to introduce a lithotribe, to crush the stone, and forthwith to extract all the detritus or the greater part of it, without molesting the wounded urethra by gravelly matter or by urine.

I beg leave to take this opportunity to state a few facts bearing upon the history of rapid lithotripsy,

and also of the aspiration of detritus from the bladder, as they are now both attracting the attention of lithotriptists. In tracing back the history of the sundry methods of lithotripsy carried out as they were at first by ponderous engines—so to speak—with drills, saws, scrapers, and many other devices to reduce vesical stones to dust and small fragments, at a time, too, when anæsthetics were not used, it has seemed to me marvellous that this operation should have so formidably rivalled lithotomy, and should be what it is, and no longer militant. The truce between the two ended in its becoming firmly established as a surgical procedure of the greatest value, equal to lithotomy and often combined with it.

To bring lithotripsy to its present state has required the best thoughts and labors of many. No one man has accomplished the task. Civiale, Amussat, Leroy, Brodie, Jacobsen, Heurteloup, Mercier, Fergusson, and others of the same period, have performed the bulk of the work, and have established the great principles by which we are now guided. Minor details, but no new principles, have since been given, and from time to time modifications and improvements of existing instruments have been made by faithful students of lithotripsy. From an early period of the age of lithotripsy, nearly all of those surgeons above named began their endeavors to simplify the operation and the instruments necessary for its execution, and to reduce it to one sitting. Prominent among these men was Heurteloup who, having recognized that angular fragments made by his percussor "often caused grave accidents, wished to make it possible to extract them without danger." He experimented to that end for a number of years with a spoon lithotribe, which he had invented in 1832, and published in 1846 the result of his labors in a work bearing the title of "*Lithotripsie sans fragments, au moyen de deux procédés de l'extraction immédiate ou de la pulvérisation immédiate des pierres vésicales par les voies naturelles.*" In his memoir of 1832, on the destruction of vesical stones by percussion, he says: "Lithotripsy is the art of crushing stones in the human bladder, in order that the powder and fragments may be expelled with the urine, or that their exit may be provoked by artificial means." To these artificial means he gave the name of lithocœnosis, which signifies evacuation of the stone, from *λῆθος*, stone, *χενωσις*, evacuation. In this same work he cites Meyrieux as having been the first to attempt to make an instrument capable of reducing a stone entirely to powder, but says that this was without success. He also speaks of Tanchou's unsuccessful effort in the same direction, and of that of Vidal and of Amussat. These instruments were designed to grind or rasp the stone from the surface. Our countryman, Dr. E. M. Moore, has for many years been laboring to perfect an instrument designed to reduce vesical stones of considerable size to powder by attacking the surface. The object of all these procedures was to reduce lithotripsy to one sitting, but of half an hour or even much more, and it is very evident that each of these inventors was aware that the bladder containing a stone was often capable of tolerating for a considerable time the presence of instruments; but this tolerance of instruments had been fully demonstrated from the very beginning of the life of lithotripsy. The first operation of Civiale (1824), gave evidence of the greatest tolerance of the bladder to instruments and to angular fragments. This operation required four sittings; two of twenty minutes each, one of thirty-five minutes, and a fourth short sitting whose precise time is not stated. After each of the first three sittings the patient had fever, but suffered

no other serious complication; the treatment having lasted one month. Civiale naively says that, this being his first trial, he had not determined the length that could be given to each sitting. He afterwards, in many cases, shortened the sittings to ten, eight, five, and later, even to three minutes.

Heurteloup labored hard, but in vain, to generalize his operation of lithocentesis. No such operations can, or ever will be, generalized, for the exceptional cases will too often be more numerous than those which come within the rule. However, this operation of Heurteloup's with the spoon lithotribe is too good to have been set aside. With slight modifications I believe it can now be applied to a large class of cases. This very ingenious surgeon says, in his work on lithotripsy without fragments, that he has succeeded at one sitting of less than twenty-five minutes in extracting the entire detritus of a stone thirteen centimetres in circumference, weighing twenty-eight grammes; and that though, to accomplish this, he was obliged to introduce the instrument many times, the patient bore the operation well. He further says that larger stones have required two such sittings and sometimes more. In the work in question, he gives a summary of one hundred and twenty-four cases of stone treated by rapid lithotripsy with immediate extraction of the detritus, and I here reproduce the figures. Of these 124 patients, 69 required one sitting; 28 two sittings; 17 three sittings; 5, four sittings; 4, five sittings; and 1 six sittings.

With the spoon lithotribe, and with the aid of an anæsthetic, I believe it possible, in half an hour, to extract the greater part, if not the whole, of the detritus of a calculus one inch in mean diameter. Very recently I felt justified in trying what I could do with a flat-bladed instrument, as I had no spoon lithotribe. Accordingly, on the 3d of October, 1879, I operated, somewhat after Heurteloup's plan, upon a patient sixty-one years of age, and here give the result. The man had, for two years, been under treatment for cystitis and was finally brought to me by a student of medicine. In ten minutes, after five introductions of the flat-bladed lithotribe, I had extracted thirty-two grains of the detritus of a stone five-eighths of an inch broad, half an inch thick, and one inch long. No anæsthetic was used, and the operation was well borne. The patient, who before had always been able to empty his bladder, did not suffer a single bad symptom, except that the sitting of ten minutes had caused enough shock to the bladder, and so disturbed its innervation, as to give rise to temporary paralysis of its muscular coat. I had foreseen this, and directed that he be catheterized at regular intervals. A few hours after the operation he passed a couple of ounces of urine, but this was evidently by the aid of his abdominal muscles and not by vesical contraction. The urine was drawn off four times each twenty-four hours. At the end of the third day he could urinate better, but was not able to empty his bladder. On the fifth day he emptied the bladder spontaneously. On the seventh day I crushed a remaining fragment three-eighths of an inch in diameter. He had passed, partly through the catheter, partly spontaneously, twenty-five grains of well pulverized detritus, and the detritus resulting from the last fragment weighed six grains. The total amount of detritus obtained was sixty-three grains.

I have known sittings of two minutes, in elderly men, to produce this paralysis, and now make it a rule to catheterize such patients every few hours after each sitting, even if they soon urinate spontaneously, and do this to prevent over-distention of the bladder,

which is so apt to cause atony. This precaution should always be taken after prolonged sittings, especially when aspiration of the fragments has been made; for this must surely cause more shock than simple lithotripsy.

ASPIRATION OF GRAVELLY MATTER FROM THE BLADDER, AND OF DETRITUS AFTER LITHOTRIPSY.

Repeated introductions of the scoop lithotribe which was brought out full of detritus were the only means that Heurteloup employed in his operation of lithocentesis; he says nothing of aspiration, though Cornay, of Rochefort, had in 1845 published his essay, "*De la lithérétie ou extraction des concrétions urinaires*," in which are figured several aspirators and large catheters, straight and curved, some of them open at the vesical extremity, some with lateral eyes, others with a single large eye on the convex or on the concave portion of the curved instruments, always within a fourth of an inch of the extremity. Some of these catheters are similar to those at present in use for the aspiration of detritus after lithotripsy. Cornay attempted to apply his methods of aspiration to lithotripsy, but was not successful. It might be urged that aspiration as applied to the extraction of small vesical concretions was known in Europe more than a hundred years ago, that Sanctorius used a syringe for making aspiration of the contents of the bladder, that aspiration of vesical calculi was centuries ago employed by the Egyptians and Arabs; nevertheless, the man who really deserves the credit for suggesting its use in combination with lithotripsy is Joseph Emile Cornay of Rochefort. One year after Cornay's publication, Sir Phillip Crampton's aspirating bottle for extracting calculous detritus became known. Later, Mercier, of Paris, used for the same purpose an India-rubber balloon, with thick walls, at one end of which is a short glass cylinder, the recipient for calculous detritus, and at the other the necessary fittings for the distal end of a large catheter. I have in my possession the original instrument made more than twenty years ago by Charrière. This elastic balloon is described and figured by Mercier in his work, "*Traitement préservatif et curatif des sédiments de la gravelle, de la pierre*," etc., Paris, 1852, p. 373. After Mercier came Clover, whose apparatus was modified by Robert & Colin, and after Clover, Bigelow of Boston, who has given us an excellent aspirating elastic bag or balloon, which is constructed on a plan similar to that of Mercier. With Bigelow's apparatus more has been accomplished than with any of the others.

For the evacuation of calculous detritus Dr. Bigelow seems to prefer straight catheters. Rectilinear catheterism here, without doubt, has its advantages, but it is, in many instances, very objectionable, and the Doctor tacitly acknowledges this by also employing curved catheters, whose incurvation is not, however well adapted to certain cases complicated with urethro-vesical valvules. The eye in these curved instruments is near the point, so that the detritus has to follow the curve, a defect which, for aspiration, renders them inferior to the straight tubes. On this account I have had catheters made by Tiemann & Co. which combine Mercier's rectangular catheter with Bigelow's large-eyed straight tube. In other words, I have added the beak of Mercier's catheter, slightly modified, to the straight tube of Bigelow, and think I have thus obtained a better instrument than either. The form of an ordinary lithotribe's beak may be given to the vesical end of this catheter.

These various contrivances have caused surgeons to

think more about the possibilities of lithotripsy, and have induced many to attempt the operation with their aid in cases where, without them, lithotripsy would have been absolutely contra-indicated. While I think very well of the combination of aspiration with lithotripsy, with the improved aspirators, I believe that it can never supersede simple lithotripsy, lithotomy, or perineal lithotomy, which three operations will be in use as long as men have stones in their bladders. The indications and contra-indications of these various operations seem to me perfectly clear.

A few more words there are which I feel bound to say before dismissing this subject. *The combination of aspiration with lithotripsy is a more difficult and delicate operation than simple lithotripsy, and should never be undertaken except by a good lithotriptist. It is as safe in good hands as it is dangerous when improperly performed. Any surgeon who is not already an experienced lithotriptist and undertakes this operation is guilty of a great wrong.* I have uttered these expressions because some surgeons seem to have thought that anæsthesia and aspiration made the operation easy, and the consequence has been that death has resulted soon after the operation, and from the operation badly done.

THE TREATMENT OF HERNIA BY INJECTION.

By JOSEPH H. WARREN, M.D.,

BOSTON, MASS.

THIS article was prepared for the Suffolk District Medical Society, but, owing to a lack of time, was not read at the last meeting on September 27th. As a month would elapse before another meeting, and as much interest is shown by the profession, I send this paper, imperfect as it is, and without those comments which would have accompanied the reading, having prepared another paper for the next meeting. My experimental, and as yet incomplete instrument was shown at the meeting, and caused no little interest.

The new and perfected instrument will be made by George Tiemann & Co., of New York City, and will be engraved, and with a minute description be furnished for publication as soon as completed. Allow me to add that if the profession will be a little indulgent, I will give all the information that I can concerning the operation as soon as possible.

I desire to correct the statement in THE MEDICAL RECORD of July 26th, in that rather laudatory article of myself, which says that I induced Dr. Heaton to give his operation to the world during his last illness. It should say that I advised and urged him to do so a number of years before the publication of the work on hernia. That which I have done in the matter will be more highly appreciated when it is known that a committee of men, whom the profession highly honors, sent by the American Medical Association a number of years ago, failed to induce Dr. Heaton to make known his method of operation.

I began operating for the radical cure of rupture soon after the death of Dr. Heaton.

The first patient was Mr. G—, aged 23, with double direct inguinal hernia. I was assisted by Dr. Wm. Emery, of Boston, who was his physician at the time of the operation. The hernial ring on the right side had become dilated to the extent of about one and a quarter inches in diameter by the protrusion of the hernial sac and intestine. The hernia on this side

had existed for over two years, and the tumor formed by the hernial protrusion was about the size of a goose-egg. The hernia upon the left side had existed for about a year and a half, was about one inch in diameter while the hernial protrusion was about one-half the size of the one on the right side. These herniæ being at times very painful, and almost impossible to be retained with the ordinary truss during the patient's daily labor, it was thought best to perform the Heatonian operation for hernia, which was done in the following manner. With the old instrument of Dr. Heaton, I injected on the right side about twenty minims of the fluid extract of quercus alba, which had been evaporated to the consistency of glycerine, and united with an eighth of a grain of morphine; on the left side about fifteen drops were injected.

In about six hours after the injection the patient began to grow feverish and restless; pulse running to about ninety, temperature to about one hundred. This condition continued for about three days, when it began gradually to subside. The urine was passed naturally, and a natural passage of the bowels took place on the sixth day. There was some swelling and redness over the hernial ring, extending up over the abdomen obliquely to the crest of the ilium. Dr. Emery attended the case, I seeing the patient occasionally. He administered one-eighth of a grain of morphine at bedtime to secure rest, and cold water was constantly applied over the seat of operation by means of a compress. A rapid and successful recovery took place, with a perfect cure of the ruptures, and on the twenty-third day of July the patient came to my office, when a temporary truss was ordered. This he was to wear for several months until we should conclude that the tissues had gained sufficient strength for him to dispense with it.

It will be seen from the nature of the case that I here felt obliged to use a much larger quantity of the extract of quercus alba than is recommended by the late Dr. Heaton in his work on the cure of rupture. The instrument too, with which he performed his operations, I found very much worn from constant use in his practice for the last thirty years, and very unfit for the purpose for which it was designed, since great manipulation was required to exclude the air from the barrel of the syringe, because of the loose and worn packing. The needle was pierced for the exit of the fluid with two small holes about one-fourth of an inch from its point. In order, therefore, to apply the mixture thoroughly to all the circumference of the ring, internal and external, it was necessary to twist the needle around during the injection. The fact is, however, that this method of operating caused a very unequal distribution of the fluids upon the parts, and much pain and needless suffering to the patient.

I examined also the needle devised by Dr. Davenport, and found his likewise had but two openings, with what I consider a very dangerous point, it being lancet-shaped, and liable to pierce the pubic and branches of the epigastric arteries, together with other vessels. It thus had not even the merits of Dr. Heaton's old needle, which was in shape not unlike a bradawl at its point, and which, because not very sharp, easily glanced by any vessels it might meet in its passage through the integuments.

Accordingly, in my next case I had a needle made for me and pierced with four holes, the first two much nearer the point of the needle than in the old instrument. This new needle, I found, worked very much better, distributing the fluid more equally upon the internal and external ring, together with less turning

of the needle in the integuments, and consequently much less pain in the operation. With this needle, as I had improved it, I continued to perform several operations with much better success than with the needle devised by Dr. Heaton. Still, when I came to operate for a very large double inguinal hernia, one direct and the other oblique, the distance through the integuments being greatly increased by adipose deposit, I found there was still a great amount of pain which I thought unnecessary, produced by the instrument—since, being rather blunt at the point, it therefore met with considerable resistance in penetration.

When I came to make a second injection, which was necessary on the left side of this hernia, since the first injection did not succeed in causing the adventitious tissue to be thrown out so as to fully close the ring, I found much greater resistance in the integuments than before, they having become more firmly consolidated from the effect of the oak bark. The operation thus caused considerable pain, although no more than most patients could endure without etherization.

I next turned my attention to find some means of penetrating the tissue into the hernial ring with less pain, and for this purpose devised a new instrument which I now take pleasure in showing you. It consists, as will be seen, of a glass barrel inclosed in silver, through whose fenestrated openings the fluid can be seen and the presence of air-bubbles detected. The number of minims is also plainly indicated on the engraved glass barrel, so that we can measure the exact number of drops injected in any given operation. It has two semicircular handles on the lower end for holding the instrument conveniently and firm during the operation.

If we next examine the needle or beak, we shall see that it is hollow, about one and three-quarter inches long, and that throughout its whole length it partakes of a spiral twist, so that it will, of necessity, revolve as it enters the tissue, and by such revolving penetrate the skin and other integuments much more readily than is possible with a straight, bluntly-pointed instrument. We can readily illustrate this by passing the improved needle through a piece of parchment, and then by performing a similar operation with a straight needle pointed like a brad-awl.

The ease with which the first needle penetrates compared with the resistance which the other meets, proves conclusively that the former instrument must do its work with much less pain than the latter. The secret of this is, that with the straight needle we get constant friction and bearing on the entire length of the needle during the whole operation, whereas with the spiral form of the needle the friction and pressure are on but a small portion of the body of the instrument at any one time, and are thus reduced to the minimum.

Then, again, it is to be observed that the needle, instead of being round, is of a flat, oval shape, and makes a wound of the same form. In this way there is a more ready coaptation of the wounded tissue than would be possible with a round puncture. The needle is pierced with ten openings upon its sides, which causes a more free and equal distribution of the fluid ejected. The difference between this and the hypodermic needle which I shall speak of later on, is that instead of the direct terminal flow of the fluid, we have it spread at right angles to the needle, and therefore gain a better distribution upon the hernial rings, internal and external, at the same time avoiding the application of the fluid to the peritoneum, which we wish to irritate as little as possible.

With the hypodermic syringe, however, the principal flow of the fluid would be upon the peritoneum, and not upon the parts intended to receive it, thus making the operation, in view of the small amount of fluid recommended, of limited and doubtful success. If we examine the attachment of this needle to the barrel of the syringe, we shall see, moreover, that the needle is held in place by a coupling and collar which allows it to revolve while on its passage through the integuments. The head of the needle within this collar is rounded something like the smaller end of an egg and on its bearings is in contact with a diamond or other hard stone which is concaved to fit accurately the convexity of the needle. In this way we avoid almost entirely the friction which would, if metal met metal, prevent the free revolution of the needle; and at the same time we render the joint sufficiently tight to prevent all leakage of the fluid as it passes from the chamber of the instrument into the needle. A bulbar opening at lower part of this chamber, opening and closing by simply pressing on a lever, allows as much or little fluid to escape, and just when you wish it to, at any stage of the operation.

In addition to this it should be stated that in my method of performing the operation, instead of applying the fluid to the internal hernial ring first, as in Dr. Heaton's operation, I reverse the process and do this last; for as soon as my needle has penetrated the tissues I immediately begin to eject the fluid upon the external ring and its surrounding parts, and so continue until I reach the internal ring. After sufficiently bathing the latter with the fluid I withdraw the instrument, still continuing to eject.

In performing in this manner we complete the operation in one-half the time employed by Dr. Heaton, and, comparatively speaking, with an absence of pain. At the same time we entirely avoid the sweeping motion of the needle described in Dr. Heaton's treatise, a process which I consider very much endangers the wounding or irritation of the muscular fibres and blood-vessels composing the rings.

Furthermore, the tissues being less likely to be serrated or irritated with my needle than with his, there is much less tendency to the formation of abscesses from such irritation than in the old operation.

I find, too, that the extract of oak bark employed by Dr. Heaton is not well held in solution, being liable to much sediment, the powder forming granulations which do not readily pass through the syringe, and which, if ejected, form a considerable irritation, and therefore a great tendency to abscesses. A better and safer formula is to evaporate the fluid extract of oak to about the consistency of glycerine, add sufficient absolute alcohol to reduce it about one-half, and then add about one-half a drachm of sulphuric ether to the half ounce of fluid. To this mixture I also add about two grains of sulphate of morphia, thus making one of the most perfect injecting fluids that I have thus far been able by numerous experiments to devise, combining the astringent effect of Dr. Heaton's extract of quercus alba, together with that of the German method of using alcohol alone, and producing the most favorable results in this operation of injecting the hernial rings for the radical cure.

The use of an ordinary hypodermic syringe would be, I consider, an operation attended with much danger, not only from the liability of penetrating a portion of the pubic and epigastric arteries, but also because the instrument would be a poor and feeble one for thorough and successful operations on hernia, since it is well known that the needle has to act in

some degree as a staff and guide in slightly lifting up, as it were, the integuments, which are often thick and supplemented by excessive adipose tissue.

Although it is high time that this operation should be better understood, still a thorough comprehension will neither lessen our great esteem for the more formal surgical operation for strangulated hernia, as now performed by all modern surgeons, nor will it be less essential for all practical surgeons thoroughly to understand this latter operation.

So long, however, as thousands upon thousands are ruptured with reducible hernia, which have heretofore required all the ingenuity of mechanical art to support and retain within the abdominal cavity by bands of iron and steel, elastic fabrics, bone and ivory, thereby endangering life by their liability to become strangulated, and often abruptly terminating existence by the strangulated intestines becoming spatulous and gangrenous, before relief can be obtained by the surgeon's knife or the more gentle operation of taxis; so long as this is the case, the discovery of a permanent cure seems a most wonderful blessing for mankind.

At a future time I hope to be able to describe more in detail the method of radical cure, as I perform it, and illustrate it by such cases worthy of peculiar mention as may come under my observation, as well as the number I have operated on.

Should I ever be disappointed in the success of this operation for the relief and cure of rupture, I should be the first to acknowledge it.

Allow me to add, I know of no operation in the annals of surgery that requires a more delicate touch, and finer manipulation in all of its details, or a more steady and firmer hand in the operator, not even excepting the fine and graceful operation of cataract on the eye. What operation demands more care than passing a sharp-pointed instrument through the living tissue into the hernial ring, among numerous tissues, vessels, nerves, and surrounded by the peritoneal membrane? I know of no operation more simple and painless, or that brings forth such rich results in relief, comfort, and almost certain cure in almost every case when performed by a skilful operator, than this one for the radical cure of rupture. But when awkwardly and indifferently performed by one deficient in the anatomical and surgical knowledge proper for the undertaking of the operation, I know of no operation so fraught with danger to human life, and one so barren in results, and therefore disappointing to both physician and patient.

Finally, I wish to add a word of caution and advice to those who may have to do with this operation. Should the patient get up too soon after being operated upon, or make any undue exercise or exertions before the parts have acquired sufficient union, consolidation, and firmness, they will very readily become separated, and of course let the hernia escape again; or, should there be union in the parts sufficient even to retain the hernia within the abdominal rings, yet a secondary swelling may again appear in the track of the first swelling and inflammation which usually attends the primary operation.

This secondary swelling, more particularly if it follows after we have made two or three injections, which are often found necessary to fully close the hernial rings, will appear in any form of inguinal hernia very prominent over the seat of the injected parts, not unlike an inverted common saucer in size and appearance, extending along the oblique to the crest of the ilium, and will assume a dark maroon color. If we

now examine it, it will appear to the touch as though fluid or pus were present.

This is not, however, the case; but it is only a slight effusion and exudation of plasmatic serum, together with some mingling with the discoloration produced by the extract of oak injected. If now we cut freely down, exposing these parts to view, we see that the tannin in the mixture injected has united with the exudation, causing the appearance of the tannate of albumen. This will show itself by the striated, shroudy, and granulated substance resembling dry blood when moistened again. If we should now constantly apply compresses of cold water and allow the patient to remain in bed, on his back, this redness and swelling will generally, in the course of two weeks, entirely disappear.

Such cases, when fully over all inflammatory attacks, will be found to be stronger in the hernial rings than those which had only the primary inflammation following the injection, because this secondary inflammation more fully unites the parts inflamed by thickening an additional deposit of organized lymph over the seat of the operation. But we should not be misled by this inflammation and proceed at once to open this large swelling, as we thereby very greatly endanger the result of the primary operation for the relief of the rupture, and put the patient's life in great and needless danger.

We should therefore patiently wait, and after a sufficient time, it will, if it be an abscess, converge, in the course of ten or twelve days, to about the size of a Sickel pear, and something like it in shape and appearance. Then, and not until then, we should proceed to open the swelling, and even then we should first be able to feel the fluctuation of the pus through the thinned walls of the abscess. And if still in doubt, from our diagnosis, whether it be an abscess or not, we should, before opening, pass into the swelling one of the finest needles of the aspirator.

Cold water is the best dressing, and all through the treatment, from the very beginning to the perfect recovery to the normal condition of the inflamed parts, neither lotions nor ointments are required.

Now, sometimes when we discharge a patient after this operation, he is commended to wear a truss or bandage, not to lift or jump either from the cars or any other height, and to be very careful about any violent exercise whatever; all of which he promises to do. But the person so dismissed, cured to all appearances, will possibly feel so mighty and proud in his recovery that, although he may for a time follow the instructions, he will some fine morning cough, perhaps, and force the abdominal parts down in order to see how strong he is in this region; or taking a peculiar delight now in examining what previous to the operation was so repulsive, he will try to lift a heavy weight, pull a hand-cart if he takes a notion, or see how high he can reach.

From these self-examinations he may feel satisfied that he is perfectly cured, and yet, in the very acts in the time of his unusual exertions, he has started and opened the adhesions formed in the hernial ring, and in the end his state will be nearly as bad as before; for upon the least yielding of these new adhesions the peritoneum and intestines will insinuate themselves through the most minute opening, and act like a wedge in forcing the parts asunder.

Had he been more cautious in following explicit directions, and waited a year or two before making violent exertions, he would never have had to bear a return of his rupture. Should a return of his hernia unfortunately take place, another operation and injec-

tion will generally effect even a firmer closing of the rings than the first operation did, because of a decidedly greater condensation and stronger cohesion of the parts treated. But I am assured that he never again, in his joy, will experiment to see how perfectly he is cured.

Sometimes, after the hernial rings are closed, as Dr. Heaton says in his work, and as I myself have seen, portions of the hernial sac, particularly in cases of long standing, are fastened down in the folds of the rings and surrounding parts, after the operation for radical cure has been successfully applied, and this may lead the patient—nay, even the physician, to think that the hernia has not been in reality cured. If, however, as I have already said, the rupture remains closed for a year or so, the cure may be looked upon as certainly a permanent one.

Suppose, however, that this hernial sac can be passed readily through the hernial rings; then a very slight amount of the injection will close the parts efficiently, leaving the patient much strengthened by the operation.

I wish to call attention again, and especially to the fact that although this operation is generally successful upon its first performance, yet it has sometimes to be repeated several times before we get a full and strong occlusion of the rings, particularly in herniæ of large and long standing. If, after we have once operated and have succeeded in partly closing the opening, we find we have not done it so as fully to effect a permanent cure, we must, after the lapse of eight or ten days, repeat the operation, and continue so to do until we have entirely closed the parts beyond danger of opening. Thus, by perseverance, and thus only, we shall in the end be delighted and rewarded by the perfect cure of almost every case we undertake.

Even after the patient has returned to his usual occupations, and has seemed, both to himself and the operator, cured, upon the slightest indication of the return of his troubles he should at once present himself for examination, and, if necessary, another operation. Indeed, not only in this operation, but in all others in surgery that may be presented to me for treatment, I could not positively, and under all circumstances, warrant a permanent cure any more than if I performed ovariectomy or the amputation of a limb, for it is well known that from some unforeseen circumstance in the operation, or in the conduct of the patient submitted, success may not always and with certainty follow a good and legitimate attempt at relief.

THREE CASES OF GLAUCOMA.

By DAVID WEBSTER, M.D.,

NEW YORK.

WELLS says: "The persons attacked by glaucoma are mostly beyond forty-five or fifty years of age."

Carter says: "The patient is commonly past the middle period of life."

Schweigger says: "It occurs very rarely before the thirtieth year."

Charles Higgins says: "It, as a rule, attacks persons beyond middle age."

Spencer Watson says: "There are recorded cases of glaucoma occurring even in infancy." But out of forty-six cases reported by him the youngest patient with uncomplicated glaucoma was twenty-eight years of age.

The extreme rarity, then, of glaucoma in children

is my excuse for publishing Case I. It is the only case of uncomplicated glaucoma in childhood, or even in youth, that I have ever met with.

Judging from what the books say, cases of hydrophthalmus, or kerato-globus, with glaucoma, occurring in the young, are not quite so uncommon.

In the cases that I have seen, however, there has usually been so much opacity of the cornea as to obscure the fundus, prevent an inspection of the optic disc, and reduce the vision to little more than perception of light. In such cases, of course, the glaucomatous condition can be determined only by the hardness of the eyeball, and, perhaps, the dilatation of the pupil.

In the case here reported the cupping of the disk could be so distinctly seen that its depth was measured. The amount of vision retained by the eye ($\frac{1}{2}$) was also considerable.

Case III. is the only case I have seen where strychnine injections improved the sight of an eye affected with glaucoma, and I have seen the remedy tried in several cases. I still have my doubts whether the improvement in vision was not due as much to the cutting off of the patient's tobacco and beer, and thus avoiding their poisonous influence upon his nervous system, as to any curative effect it exercised upon the glaucoma.

CASE I.—*Glaucoma Simplex in a Child Ten Years of Age.*

Ida S—, æt. 10, was brought by her father to consult Dr. C. R. Agnew on April 5, 1876. The following history was noted:

The child saw perfectly well up to four months ago, and could read ordinary print up to one month ago, since which she became rapidly blind in both eyes.

The first thing that called attention to her eyes was that on attempting to fix she looked cross-eyed. Her parents, on observing this deviation of her optical axes, took her to their family physician, who gave her medicine and ordered a solution of atropine to be dropped into her eyes daily. This treatment was continued for about two weeks.

She has never complained of pain in or about her eyes, and has not suffered from headaches, but has lately complained of dizziness.

No eye-drops have been used in either eye for more than three weeks, and yet both pupils are widely dilated.

The tension is very much increased in both eyes, but more markedly so in the left.

Neither eye retains preception of light, the patient being unable to appreciate the light from an argand burner when concentrated upon the pupil by means of a two-inch lens.

Ophthalmoscopic examination shows both eyes to be emmetropic. The media are perfectly transparent. The right optic disk is excavated to a depth of 1.8 mm. ($-\frac{1}{2}$); the left, 2.14 mm. ($-\frac{1}{2}$). There is a narrow ring of choroidal atrophy around the margin of the excavation.

There is marked pulsation of the retinal arteries in both eyes. In the left the arteries seem to spring forward from the bottom of the cup with each beat of the heart.

A discouraging prognosis was given, and iridectomy upon both eyes was advised, but declined.

CASE II.—*Glaucoma with Kerato-globus.*

Mary L—, æt. 10, came under observation Feb. 27, 1878. Her parents stated that she was born with the right eye larger than the left, but in so far as they

were able to judge, she saw as well with it as with the left until she was eight years of age. The child says she never could see to read with the right eye. The mother has lately observed frequent involuntary rolling of both eyes, with other symptoms of chorea, as twitching of the face and jerking up of the shoulders.

The right eye is from one-third to one-fourth larger than the left, and the sclera is so thinned that the dark choroid shines through it, giving the whole "white of the eye" a bluish appearance. The cornea seems about a third larger than the cornea of the other eye, and the anterior chamber correspondingly deep. Tension normal.

R. V. = $\frac{2}{30}$, without a glass, but raised to $\frac{3}{8}$ with $-\frac{1}{4}$. L. V. = $\frac{2}{30}$; Hm. $\frac{5}{60}$.

Ophthalmoscopic examination of the buphthalmic eye shows some diffuse opacity of the cornea. The fundus is best seen through $-\frac{1}{4}$, and is streaked and mottled with pigment. There is cupping of the entire optic disc to a depth of about 0.91 mm. ($-\frac{1}{16}$). There is no visible pulsation of the retinal vessels, and no very marked ring of atrophy about the disk.

The field of vision is contracted to about half its normal size, and rather more upon the nasal side than in other directions.

Non-interference was advised.

CASE III.—*Glaucoma Simplex, with old Corneal Opacities of both Eyes, benefited by Strychnine Injections.*

A. K.—, æt. 41, German, lager beer saloon-keeper, came to see me at the Manhattan Eye and Ear Hospital on March 19, 1877. He said that his eyesight had been very poor for many years, but had lately been growing much worse. He has had no pain, photopsia, or chromopsia. He has been in the habit, for years, of smoking and chewing tobacco, and of drinking lager beer excessively.

R. V. $\frac{3}{8}$, L. V. $\frac{2}{30}$; neither improved by glasses. Both visual fields concentrically contracted, left more so. Tension slightly increased in both eyes, and pupils of both eyes sluggish.

Examination with the ophthalmoscope and with lenses showed the existence, in both eyes, of such corneal opacities as usually follow phlyctenular keratitis, and complete excavation of both optic disks.

The depth of the cupping could not be accurately measured by reason of the corneal opacities, but all who examined the eyes agreed that the excavation was unquestionably glaucomatous.

Mr. K. was directed to stop the use of tobacco and beer, and was placed upon hypodermic injections of nitrate of strychnia, commencing with gr. $\frac{1}{10}$ and adding gr. $\frac{1}{20}$ to the dose daily.

April 10th.—R. V. $\frac{3}{8}$, L. V. $\frac{2}{30}$.

April 14th.—R. V. $\frac{2}{30}$, L. V. $\frac{2}{30}$.

May 1st.—Mr. K.'s vision remains as at last date. He can read his German newspaper, and declines further treatment.

Progress of Medical Science.

TREATMENT OF WHITE SWELLING BY INJECTIONS OF SULPHATE OF ZINC.—M. Léon Le Fort described to the *Société de Chirurgie* a new method of treating white swelling, which he had tried on a patient who had suffered from fungous disease of the knee-joint for four years. All the classical treatments had failed to give relief, and on May 12th, M. Le Fort injected into the cavity of the joint a ten per cent. solution of sulphate of zinc, one quarter alcohol being added. No inflammatory reaction followed the injection, with the exception of a slight amount of induration at the point of puncture. This was repeated once a week, but before injecting the caustic liquid, he always removed with the aspirator the pus contained in the joint. This pus never exceeded thirty grammes in quantity, and diminished gradually with each succeeding puncture. The patient is now in good condition, his knee has diminished in size, and it has become possible to move the articulation. The patient has not completely recovered, but as he is charmed with the progress already made and wishes to leave the hospital, M. Le Fort desired to present him before the adjournment of the society.—*Moniteur de la Polyclinique*, August 17, 1879.

THE ACTION OF THE DIGESTIVE FERMENTS EMPLOYED IN THE TREATMENT OF DYSPEPSIA.—At a recent meeting of the *Académie de Médecine*, M. Vulpian laid before the society the results of his investigations into the action of pepsin, pancreatin, and diastase. The different preparations of pepsin were found to be of very variable strength, many of them so feeble as to be absolutely useless as remedial agents. The addition of alcohol to an acidified solution of pepsin or to natural gastric juice, retards digestion when the proportion of alcohol in the solution exceeds that of claret or burgundy wine. From this the conclusion is drawn that wines and elixirs of pepsin should not be used. Some of the elixirs examined contained but very small proportions of the principle, the rest having been precipitated by the alcohol during the manufacture. Pancreatin and diastase, when mixed with artificial or natural gastric juice, have not as energetic an action on starchy matters as when pure water is used for their solution. M. Mourrut, who continued the investigations under the direction of M. Vulpian, found that the effect of acid was to retard the action of diastase, and to destroy that of pancreatin. The effect of alcohol, he found, was to retard the action of all the ferments, an effect, perhaps, most marked in the case of pepsin.—*Gazette Médicale de Paris*, August 16, 1879.

LYMPHADENOMA OF THE TESTICLE.—The investigation of this subject is of recent date, Dr. Malassez, in 1874, having been the first to call attention to the distinction of this disease from sarcoma. Five cases have been collected by Drs. Monod and Terrillon, who had an opportunity of examining the specimen taken from the last. In their very interesting report on these cases they advance the following conclusions:

1. Lymphadenoma of the testicle is a tissue of new formation, having a structure similar to that of the lymphatic glands.

2. It constitutes an anatomically distinct variety of sarcocele, the diagnosis of which is not impossible during life.

3. It seems to confine itself to the gland itself, sparing the epididymis.

THE METRIC SYSTEM IN ENGLAND.—Dr. E. Seguin read an address on the subject of the metric system at the recent meeting of the British Medical Association in Cork. Subsequently, on motion of Mr. Ernest Hart, editor of the *British Medical Journal*, a committee was appointed to report on the means of introducing the metric system in medicine in Great Britain. Among the members of the committee are Dr. Lauder Brunton, Dr. Quain, and Mr. Hart.—*Medical and Surg. Reporter*.

4. The whole gland is affected from the first. The lesions appear to begin in the intertubular tissue, and to attack secondarily the walls of the seminal tubes, which gradually disappear as the neoplasm increases.

5. Lymphadenoma of the testicle may affect, at the same time or successively, both testicles—a characteristic of this variety of neoplasm.

6. The infection of the general system is early and rapid. The disease is frequently found in the viscera, in the bones, and in the cutaneous and subcutaneous tissues at great distances from the original focus.

This character, like the preceding, is of great help in the diagnosis:

7. This systemic infection can exist for a comparatively long period, without inducing any appreciable cachexia.

8. Lymphadenoma of the testicle is not apparently accompanied by leukemia.

9. The prognosis is fatal, and up to this time surgical intervention has been of no avail.—*Archives Générales de Médecine*, July, 1879.

ON THE THERAPEUTIC USES OF THE BENZOATE OF SODA.—Buchholtz discovered that the benzoate of soda possesses in a high degree the power of preventing the development of bacteria in putrescible fluids. Brown found that a previous hypodermic injection of the drug will prevent, to a certain extent, the development of diphtheria from inoculation in an animal. Dr. Schüller, of Greifswald, used it as an antiseptic dressing, but did not find that it possessed any advantages over carbolic or salicylic acid. Given internally, however, he found it very beneficial in several cases of extensive phlegmonous processes in the hand and forearm, and of erysipelas, and in one case of diphtheritic inflammation of the bladder. In all of these cases the fever disappeared entirely, and the local symptoms improved, after from 10 to 20 grammes had been taken. The effect was particularly striking in a case of violent traumatic erysipelas with chill and high fever, in which 25 grammes were taken within 24 hours. The fever began to sink after a few doses had been administered. The remedy also proved useful in some cases of scrofulous articular affections with simultaneous catarrh of the pulmonary apices and persistent hectic. Schüller's formula of administration was: benzoate of soda, 10 grammes; syrup, 20 grammes; water, 200 grammes (3 ijs. — 3 v. — 3 vjs.). Dose, a tablespoonful four or five times daily, when its use was continued for a long time, and every hour in acute febrile affections.

Prof. Klebs believes that the drug is absorbed very slowly by the intestines when fever is present, and hence recommends its direct injection into the blood. Experimentally it seems to be demonstrated that immense quantities can be injected into the blood without danger; as much as 5 grammes would have to be injected in the case of a man of ordinary size, to prevent the development of bacteria in the blood. The only danger to be feared would be paralysis of the heart, an effect which would be due to the soda rather than to the benzoic acid. Klebs suggests that this danger might be avoided by the use of the less soluble *benzoate of magnesia*. This salt may also be given internally in powder or pills in place of the benzoate of soda, when the latter causes nausea. The *benzoate of lithia* is said to be more soluble than the magnesia salt, and like it to have no action on the pneumogastric.

Letzerich gave the benzoate of soda in eight cases of severe diphtheria in children, and states that no other remedy has produced in his hands such rapid and

lasting effects. The temperature usually fell in from 24 to 36 hours. Only one of the patients died—a badly nourished child, who had just recovered from an attack of croup. Besides the internal administration of the drug, it was employed locally by insufflation or gargles. Hoffman, of Berlin, treated 12 cases of diphtheria with the drug; all of them recovered. He believes that the medicine essentially shortened the course of the disease. On the other hand, Widerhofer, of Vienna, treated 17 cases of diphtheria in children with the benzoate of soda, and lost eight of the patients. He does not regard it as a reliable remedy in this disease.

Letzerich also recommends the benzoate of soda in gastric catarrh, particularly in infants, and in this he is seconded by Kapuscinski, of Posen, who administered it in 63 cases of gastro-intestinal catarrh in children under five years of age, with the most striking results. The vomiting was controlled very rapidly, but the drug had no power over the diarrhoea, which yielded, however, to bismuth and soda after the vomiting ceased. He gave one or two teaspoonfuls of a 5 per cent. solution of the salt every two hours. Finally the benzoate of soda has been given with good effects in two cases of morbus Brightii, one of which had already presented uræmic symptoms. Five grammes of the salt were given three times a day, and under this treatment the albumen in the urine rapidly diminished, and soon only traces of it were left.—*Allg. med. Cent.-Zeit.*, July, 16, 1879; *Deutsche med. Wochens.*, August 9, 1879, and *Schmidt's Jahrbücher*, 1879, No. 5.

LOCAL TREATMENT OF PALMAR SYPHILIDES.—Those syphilitic affections of the hand, described as *porriasis palmaris*, are remarkable for their great rebelliousness to internal treatment. It is necessary that local applications should be combined with the internal administration of remedies. These should consist in frictions with soft-soap, and enveloping the hands in flannels soaked in the same remedy. Under this treatment the epidermis will soften and peel off, and the affected parts may then be painted with tinct. iodine, or touched with nitrate of silver, when the lesions will quickly disappear.—*Journal de Médecine*, August, 1879.

TREATMENT OF THE EPHELIDES OF PREGNANCY BY CHRYSOPHANIC ACID.—Chrysophanic acid has been used with considerable success by Neumann and Braun in those pigmentary patches which appear on the skin during pregnancy. The acid has an irritant action on the skin similar to that of nitrate of silver and other topical remedies, under the influence of which the epithelial and subepithelial layers are destroyed, and the pigmentation disappears and does not return. The irritation excited should only be sufficient to cause the disappearance of the spots, but it is sometimes difficult to limit it to this, owing to the very variable susceptibility of the skin to the action of the acid. The parts should be well washed with soap and water, and the following ointment applied without friction: R.—Acid chrysophanic, 1 grm.; lard, 40 grms. The salve is spread on a rag and applied to the affected part, care being taken not to allow it to spread further than the discolored spot. Ordinarily, friction may be used three or four times at two days' interval, but it is necessary to watch the skin, and if much swelling appear the frictions should be stopped. The application of the ointment is followed by swelling and moderate burning; the parts become red, and then black, then desquamation takes place and the spots disappear.—*Journal de Médecine*, August, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 18, 1879.

A NEW MALARIAL GERM.

NEXT to the North Pole it is probable that specific germs have been the most prominent object of recent scientific inquiry. And it has happened that, since the malarial germ is the most common and the least noxious of these hypothetical organisms, there have been especially numerous efforts to capture it. We have the pleasure of chronicling the last, and we believe the seventh announcement of its authentic discovery. It has been found amongst the Pontine marshes. It was here that Balestra several years ago found a species of alga, which appeared to be the poison. Here, also, M. Lanzi and G. Terrigi, in 1875, found certain dark-colored granules developing in decomposing slime, and identical, as it seemed, with the melanine granules in malarial spleens and livers.

The present researches have been made by Professor Klebs and Signor Tommasi-Crudeli, and have been conducted with a scientific precision which makes their claims of success worthy of more attention, perhaps, than those of any of their predecessors. Their method of procedure was as follows:

They gathered from the earth, air, and water of malarious regions infectious solutions, which they proved to be malarial by the peculiar paroxysmal temperature waves and the enlarged spleens which were produced when portions were injected into the subcutaneous cellular tissue of rabbits. They then separated the solid parts of the infecting solutions from the liquid by filtration, generally through plaster-of-Paris. In this way they discovered that the poison was a solid, for the filtrate scarcely ever produced any rise of temperature, while the residue always had the specific effect.

The organisms in this residue, which are thought by the observers to be the true causes of malaria, are minute spores, .95 micromillimetres in diameter, oval in shape, and belong to the genus *vacillus*. The name

given them is *vacillus malarie*. They do not develop in water—indeed, a large quantity renders them inactive—but require free oxygen and substances rich in nitrogen. In the body they develop to the greatest extent in the spleen and medulla, a fact noted as important, since it is here that the most characteristic anatomical changes are found in those suffering from grave malarious fevers. The organism multiplies by transverse fission, thus converting itself into a chain. In the interior of the links spores appear and eventually fill it.

A writer in *The Practitioner*, assuming that either the *vacillus*, or some other vegetable organism, is the cause of malaria, applies to it the observations of Lussana, and thus makes a very complete and, so to speak, rotund hypothesis. Lussana found that some poisons, particularly curare, when taken into the stomach, do not at once enter the general circulation, but pass to the liver, are excreted with the bile, and absorbed by the intestinal vessels again. If the poison is small in amount it may continue this round indefinitely. Now, the *vacillus malarie*, it is thought, lodges in the mouth and pharynx, is swallowed with the saliva, and taken into the portal circulation. If the quantity is great some pass into the general circulation, produce alterations in the quality of the blood, which affect the nerve-centres and cause the ague fit. A few continue in the portal circulation, but soon multiply there and discharge their surplus into the general blood current again. Thus the morbid process goes on.

We have presented these observations and theories somewhat at length, because they have been made with great care, and are endorsed by men whose scientific attainments are unquestionable. The experimenters appear confident that they have demonstrated their point, but the profession will hardly accept their conclusions without a good deal more evidence. We have had the same claims from other observers, and made with equal confidence, though not, it must be confessed, supported by an equal array of facts. But the *vacillus malarie* must be found in some other place than the Pontine Marshes, and we wish to know, also, how it manages to exist on the slopes of the Andes, 8,000 feet or more above the sea, with no swamps anywhere about.

It will be a great triumph for the believers in the germ theory if the observations of Klebs and Tommasi-Crudeli are confirmed, and it will be an advantage to science, in any event, that further experiments, conducted in the same precise methods, are likely to be inaugurated.

THE AMERICAN GYNECOLOGICAL SOCIETY.

We furnish our readers, in this number, a somewhat extended report of the transactions of the American Gynecological Society, at its annual meeting held in Baltimore, September last. Upon the important sub-

ject of intra-uterine medication we are able to give interesting points additional to those already presented in a previous number, and, under the head of puerperal septicæmia, immediately following, are additional considerations bearing upon the same subject. The address by the President, Dr. T. Gaillard Thomas, was not only a highly accomplished production, but one which contained much food for thought. With his position regarding medical literature we are especially pleased, and believe that if a more thorough, impartial, and scrutinizing review, sacrificial if needs be, was given to the volumes which are poured out yearly, a great and lasting good would be accomplished.

A few papers are worthy of special mention because they are upon either new subjects, or upon subjects which have not received the attention which their importance demands.

The paper presented by Dr. A. J. C. Skene, of Brooklyn, contains original observations among a class of patients hitherto unstudied from this special point of view. Only the conclusions reached by Dr. Paul F. Mundé, of this city, in his paper, are given, yet they embrace important points in the diagnosis and treatment of an affection which has not received due consideration in the text-books on diseases of women.

The paper by Dr. Isaac E. Taylor, coming from such a skilled operator, is entitled to careful consideration, and is especially interesting in the light of the recent discussion on the use of the obstetric forceps, held in the London Obstetrical Society, with an abstract of which our readers have been already supplied. To use the forceps in the first stage of a natural labor, merely to assist nature, nothing more, although a doctrine advocated for many years by Dr. Taylor, has not been brought so prominently before the profession as in the present instance.

Dr. J. Taber Johnson, of Washington, read a paper which has a practical bearing upon preventive medicine in a most important department. We fear it will not receive the study to which it is entitled, simply because it strikes so deep at the root of the culpable practice of too many careless practitioners.

A large number of papers were presented which were not read. Those which were read, in general possessed notable value, and the discussions which followed enhanced their worth to a marked extent. Of course there was much dross with the gold exhibited, but unfortunately this is one of the characteristics of all medical societies carried on upon the open plan which of necessity governs the working of all such organizations. The fourth annual meeting of this society, however, was a success, and none of its members or invited guests have reason to regret that it was held in Baltimore, where they were received with open arms, open hearts, and open houses, by the medical profession of the city.

CONSERVATIVE JOURNALISM.

SEVERAL months ago the *Philadelphia Medical and Surgical Reporter*, in discussing the subject of licensed prostitution, took occasion to praise the workings of the British Contagious Diseases Acts; it also complimented very highly the medical press of England for its stand in favor of these laws, and lamented the dullness and conservatism of American medical journals in not advocating the regulation of prostitution in this country, and thus taking equally broad views with their English brethren. Subsequently a special reference was made to THE MEDICAL RECORD for its very ridiculous backwardness in this direction.

Now the facts are, as we have shown, that the Contagious Diseases Acts have only a limited and peculiar application. A journal might consistently defend them and yet deny the utility of the general adoption of regulation measures. The fact, therefore, that English medical journals are in favor of these acts, while American journals do not advocate any of the present systems of regulating prostitution, furnishes no evidence that the latter are unenlightened and unprogressive. The melancholy of the *Reporter* over the blindness of its exchanges would seem to be quite illogical.

There are times, however, when an apparent shallowness of reasoning is not so much an evidence of insufficient intellect as of inadequate information; and we are glad to think that this is the case with our esteemed contemporary. We recommend to it a more extensive perusal of the literature of the subjects which it discusses.

Reports of Societies.

THE AMERICAN GYNECOLOGICAL SOCIETY.

Fourth Annual Meeting, held in Baltimore, September 17, 18, and 19, 1879.

WEDNESDAY—SEPTEMBER 17TH—FIRST DAY—MORNING SESSION.

THE Society met in the Johns Hopkins University, and was called to order at 9.30 A.M. by the President, DR. T. GAILLARD THOMAS, of New York.

Thirty Fellows responded to the roll-call.

The address of welcome was given by DR. W. T. HOWARD, of Baltimore.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Dr. W. H. Baker and Dr. W. C. B. Fifield, of Boston; Dr. J. S. D. Cullen, of Richmond, Va.; Dr. W. A. B. Norcom, of Edenton, N. C.; Dr. C. W. Franzoni, of Washington, D. C.; Dr. H. H. Battey, of Rome, Ga.; Dr. N. D. Baker, of Martinsburg, Va.; Dr. Henry Carpenter, of Lancaster, Pa.; Dr. W. Selden, of Norfolk, Va.; and President D. C. Gillman. Dr. J. Carey Thomas, Dr. G. Lane Taneyhill, Prof. G. W. Miltenberger, Prof. Alan P. Smith, Prof. S. S.

Chew, Prof. A. F. Erich, Dr. B. B. Browne, Dr. Thomas H. Buckler, Prof. Christopher Johnston, Dr. J. J. Chisolm, Prof. F. Donaldson, of Baltimore.

PRESIDENT GILMAN then made a brief allusion to the work of the University, and welcomed the Society in behalf of the two foundations bearing the name of Johns Hopkins.

The first paper was read by DR. JAMES P. WHITE, of Buffalo, N. Y., on the subject of

INTRA-UTERINE MEDICATION,

and in it he passed over pathological conditions and the therapeutics of those conditions, and simply gave some hints regarding the means which had been found available in the proper application of remedies to the mucous membrane of the neck and body of the uterus. Although intra-uterine injections were advised by some, they were rarely resorted to by the experienced practitioner. He spoke of the necessity of enlarging the cervical canal before resorting to this method of treatment. He recommended shallow incisions into the mucous membrane of the neck of the uterus, to facilitate in certain cases the introduction of sponge-tents. If properly made, no harm followed the incisions. After removing the catarrhal discharge from the cervix, he very commonly used the following as a local application:

B. Iodine.....	3 i.
Iodide of potassium.....	3 ss.
Tannin.....	3 i.
Glycerine.....	q. s. to dissolve.

M.

Dr. White then exhibited several instruments to be used in carrying out intra-uterine medication.

INTRA-UTERINE MEDICATION BY IODIZED PHENOL.

DR. ROBERT BATTY, of Rome, Ga., read a paper on the above subject, which consisted essentially in results obtained in a series of cases by the use of this agent, which he first brought to the notice of the profession in February, 1877. For ordinary purposes he recommended a solution of iodine in liquefied carbolic acid, in the proportion of 2 to 8. The energy of the solution was limited by the quantity used and the time it was allowed to remain in contact with the surface to which it was applied. It was rapidly absorbed and gave but little pain. The cervical glands were not destroyed by its use, and in no case within his knowledge had it produced stenosis.

The President called upon DR. J. MARION SIMS, of New York, to open the discussion on the papers by Drs. White and Batty.

DR. SIMS remarked, with reference to Dr. White's paper, that he was sorry the author had not mentioned the diseases in which he employed intra-uterine medication; and, with reference to Dr. Batty's paper, he was sorry the author did not continue to read the histories of the cases with which he illustrated his method of practice. The cases seemed to justify the means employed; yet, to him, it did not seem to be the best and quickest method of dealing with them. He thought, from his recollection of the histories as read, that in some of them the symptoms depended on the presence of fungoid granulations in the cavity of the uterus, and that any one of them might have been cured within four weeks simply by using the curette without intra-uterine medication. Certainly, with regard to time, treatment by the use of the curette would have been the most valuable, and, with regard to safety, he was not prepared to say that it was not quite as safe as intra-uterine medication by the use of

the remedy recommended. Carbolyzed preparations, in disagreeable odor, were second only to iodoform, which, on that account, he did not employ.

He had treated successfully several cases of uterine catarrh, in which there was present an albuminous secretion that persisted, despite ordinary treatment, by dilating the cervical canal, scraping the fungoid granulations completely away, and afterwards cauterizing the cervix up to the os internum by means of Paquelin's cautery.

DR. ISAAC E. TAYLOR, of New York, remarked that the course of treatment just mentioned by Dr. Sims was one which he had pursued for several years, and that he had given up all other methods. He used an iron heated a little above the dark color, and applied it rapidly to the part.

DR. WILLIAM T. HOWARD, of Baltimore, spoke of the importance of making a correct diagnosis, and the first thing he endeavored to do was to ascertain how far flexion, which was almost always present, extended. If it extended only to the os internum, the case was more easily controlled than when it extended beyond. He had not been able to effect a cure of the catarrh when there was present much flexion, especially of the body; but the first step in the treatment was to endeavor to correct the flexion, and then retain the uterus in position by means of a pessary. He had used Batty's preparation of iodized phenol, and in a large proportion of cases he had found it to be an efficient agent.

DR. FORDYCE BARKER, of New York, remarked, with regard to injecting the cavity of the uterus, that the use of the most bland fluid in that manner often produced the most intense pain in cases in which the size of the canal was normal, but not so in a uterus enlarged as in pregnancy. Therefore, in the treatment of hemorrhage after labor at full term or after abortion, there was perfect toleration of the injection into the uterine cavity; consequently in that class of cases intra-uterine injections were sometimes of great service. With reference to the value of the curette and intra-uterine medication, he thought they were not to be compared with each other as being applicable to the same class of cases. For example, metrorrhagia dependent on fungoid degeneration of the lining of the uterus, at the climacteric period as an illustration, could be best treated probably by the use of the curette; but metrorrhagia occurring at that period did not always depend upon that cause, and in that class the curette was of no service whatever, while intra-uterine medication might be employed with very great benefit.

Again there was a class of cases in which the uterus was flabby, as the result of impaired nutrition frequently associated with subinvolution, and in those cases he has been more successful in the use of intra-uterine medication than by the use of the curette.

He then related three cases of membranous dysmenorrhea which he had cured by means of intra-uterine applications of iodoform in the form of cones. First dilate the cervix, then introduce cones, one every other day. He showed a syringe to be used as an applicator.

DR. JOHN BYRNE, of Brooklyn, N. Y., remarked that success in intra-uterine medication depended entirely upon accuracy in diagnosis, not only with regard to the condition of the uterus, but more especially as to the question of etiology. The uterus in a normal or nearly approaching a normal condition would not tolerate with impunity any foreign substance in liquid form in its cavity, however bland it might be. The conclusion which he had reached was

that, if great accuracy in diagnosis was observed, intra-uterine medication, judiciously resorted to, was of immense value, and might be employed with perfect safety; that the farther the departure of the uterus from the normal to the pathological standard, the more tolerant it became of all medication and all interference; that liquid injections he had long since abandoned, with a single exception, namely, chloride of sodium water, after the use of the curette, securing a full, free return for the fluid.

The use of the curette was a successful method of treatment, but there were cases of uterine catarrh in which the cautery would succeed when the curette failed.

DR. PAUL F. MUNDÉ, of New York, remarked that, in the light of an experience in intra-uterine medication of various kinds in more than two thousand gynecological cases, he had long since discontinued the use of intra-uterine injections. He recommended Buttlie's hard-rubber uterine syringe, which operated in precisely the same manner as the instrument described by Dr. Barker. Even from that, the most effectual, and also the most harmless manner of making intra-uterine applications through an undilated os, he had seen three cases of uterine colic with moderate shock, one (in which a solution of nitrate of silver 3 i. to 3 i. was used) so severe as to keep the patient in his office for several hours and necessitate a hypodermic injection of morphine.

DR. WM. GOODELL, of Philadelphia, objected to making incisions in the mucous membranes of the cervix before using the sponge-tent; the danger was from subsequent absorption of septic material.

With reference to intra-uterine medication, he had within the last three or four years been using it with a great deal more effect than formerly. He rarely uses the syringe by means of expression, but by injecting carefully and slowly the solution employed—four to eight drops of Calvert's No. 4 solution of carbolic acid, or Dr. Battey's solution with hydrate of chloral added. With reference to injections, if the womb was positively diseased, there was no harm from using fluid in its cavity, because the os was patulous; but if, as in a hysterical subject, it was difficult to determine whether or not the endometrium was diseased, they should be avoided. There was a class of cases in which he believed that the pain was due to fissure at the internal os, and such cases he had cured by forced dilatation of the cervical canal, and making a local application at that point.

DR. NATHAN BOZEMAN, of New York, thought sufficient estimate had not been placed upon displacements of the uterus as a factor in the etiology of uterine catarrh. His method of treatment was to first correct the displacement, and when that was done, although not entirely opposed to intra-uterine medication, he thought almost any kind of application might yield satisfactory results.

DR. H. P. O. WILSON, of Baltimore, believed that, when properly and gently administered, intra-uterine medication might be expected to yield good results, the same as were obtained by the local application of remedies to other mucous membranes, as to the throat, the urethra, etc. He thought one reason why we were not so successful as we might be in the use of intra-uterine medication was because of the imperfect manner in which the applications were made, improper manipulations, etc., and too much such medication was often a reason why we were not more successful. He had abandoned injections into the uterine cavity. He uniformly employed Sims's speculum and applicator.

DR. THADDEUS A. REAMY, of Cincinnati, remarked

that he had used Dr. Battey's preparation, but had abandoned it in consequence of its unpleasant odor. He thought that, in many cases of catarrh in which the uterus was enlarged and the disease had become chronic, great benefit was derived from dilating the cervix, independent of any consideration of being able to reach the cavity of the uterus, or of any consideration connected with medication of the cervical walls. In cases of what is commonly called incurable cervical catarrh, he had for many years dilated the cervix thoroughly with sea-tangle tents, and then applied Churchill's tincture of iodine, or some such preparation, and he had been pleased with the results obtained. The plan was, to dilate at different times, and make the local application. For villous degeneration, the use of the curette alone was not sufficient; the pressure from thorough dilatation should be added. He also disapproved of incising the mucous membrane of the cervix.

His treatment for membranous dysmenorrhea was to use the wire curette only moderately sharp, when the first symptoms of menstruation manifest themselves, curetting the entire endometrium. He disapproved of injecting the cavity of the non-puerperal uterus.

THE PRESIDENT took the position that intra-uterine medication, carried above the os internum, should be given up as very hazardous, in many cases as very useless, and as a means of treatment which yielded disappointing results. He believed that, when uterine catarrh extended above the internal os, there was, as a rule, some special cause for it, such as flexure or version, and very commonly uterine congestion induced by only a slight degree of uterine descent. Treat the cause, and the secondary manifestation disappeared. In cases of fungoid degeneration following abortion or labor at full term, intra-uterine medication was so far inferior to the curette that it should not be adopted. The point of his argument was, that in all these cases there was generally something which gave rise to the symptoms, and when it was removed the symptoms would disappear.

The discussion was closed by Drs. White and Battey.

NOMINATING COMMITTEE.

The President appointed Drs. Fordyce Barker, Isaac E. Taylor, and W. L. Richardson as Committee on Nominations. He also appointed Drs. A. J. Skene and N. Bozeman as

AUDITING COMMITTEE.

The Society then adjourned to meet at 3 P.M.

FIRST DAY—AFTERNOON SESSION.

The Society was called to order by the President at 3 P.M.

The first paper was one on

THE TREATMENT OF PUERPERAL SEPTICÆMIA BY INTRA-UTERINE INJECTIONS,

presented by DR. E. W. JENKS, of Chicago, and read by the Secretary.

The paper contained an extended reference to the literature of the subject, the varying views which from time to time had been held, together with the author's conclusions.

DR. JAMES R. CHADWICK, of Boston, then read a paper entitled

IDIOPATHIC SEPTICÆMIA IN GYNECOLOGICAL PRACTICE

In the term "gynecological practice" he included obstetrical, and defined septicæmia as a constitutional

disorder of limited duration, caused by the entrance into the circulation of a certain quantity of septic material [Burdon Sanderson]. As illustrating the character and symptoms of the disease, he gave the histories of five cases which had the following features in common: a denuded surface in the uterine cavity and chill; there was no pain, vomiting, or other sign of inflammation, but high fever, and the special symptom mentioned as belonging to most of that class of cases was an abnormal insensibility to pain, taken in conjunction with high fever.

He preferred to use permanganate of potash as a disinfectant, making a solution of a deep claret color. One special advantage of that agent was the change in color produced by the presence of putrid matter, the change being from deep claret color to deep yellow so long as putrid material was present. Injections into the uterus should be discontinued if chills followed. Danger from air entering into the sinuses was due to the amount entering, the entrance of a considerable quantity being required to do harm.

PUERPERAL SEPTICÆMIA.

DR. A. D. SINCLAIR, of Boston, then reported twenty-one consecutive cases of puerperal septicæmia which occurred in the Boston Lying-in Hospital. Of those nine died and twelve recovered. The cases illustrated direct contagion, and the *conditions favoring the invasion* were: prolonged and severe labors; 2, torn perineum or lacerated cervix; 3, retention of the foreign matter in the uterus; 4, nervous condition.

The treatment was: 1, quinine to cinchonism; 2, brandy to alcoholism; 3, nutriment, all that could be borne, in the shape of milk, beef-tea, egg-nog, etc.; 4, uterine douches of permanganate of potash and carbolic acid; 5, sponge-baths.

The douches were given every three hours. The brandy was given, in one case, $\frac{3}{4}$ ss. every half-hour without inebriation, and beef-juice and tea of six pounds of meat in one day.

The subject of puerperal septicæmia being before the Society, the President called upon

DR. GILMAN KIMBALL, of Lowell, Mass., to open the discussion. He remarked that, although he had seen a great deal of septicæmia following ovariectomy, he was yet ignorant of its nature, and of what to do for the patient when it occurred. One thing had struck him as remarkable, and that was, that some of the worst cases he had ever had—cases in which the discharges incident to ovariectomy had been of the worst character and most persistent, had really done the best; while in many other instances, in which there was no discharge at all, septicæmia or symptoms like those of septicæmia had developed, and fatal poisoning had gone on very rapidly. When it did occur, his chief reliance was on stimulants and nutriment.

DR. A. J. C. SKENE, of Brooklyn, believed that when we employed antiseptic management in puerperal cases, as was antiseptic surgery, we should improve in our results the same as had the general surgeons in theirs. He was inclined to think that the use of intra-uterine injections would become, if it had not already, very circumscribed indeed, and that in the future the authors of the papers would not use them so much as they had in the past. He also thought that intra-uterine injections were a means which could not be employed without danger; and, more than that, the use of the vaginal and uterine douche did not always guard against the occurrence of septicæmia after the uterus had been injured.

The discussion was continued by Drs. G. J. Engelmann, of St. Louis; Fordyce Barker, of New York; Paul F. Mundé, of New York; H. P. C. Wilson, of Baltimore; W. Goodell, of Philadelphia; W. T. Howard, of Baltimore; James D. Trask, of Astoria, N. Y.; A. T. Erich, of Baltimore, the President, and Dr. Chadwick.

The Society then adjourned to meet at 9.30 A.M. on Thursday.

THURSDAY, SEPTEMBER 18TH.—SECOND DAY—MORNING SESSION.

The Society was called to order by the President at 9.30 A.M.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Dr. E. A. Atkinson, Dr. Thomas F. Murdoch, and Dr. John Dickson, of Baltimore; Dr. A. F. King, Dr. W. W. Johnson, and Dr. T. Hansmann, of Washington, D. C.; Dr. W. H. Geddings, of Aiken, S. C.; Dr. D. W. Lassiter, of Petersburg, Va.; Dr. F. Wilhoft, of New Orleans, and Dr. W. W. Baird, of Washington, N. J.

The first paper was read by DR. S. C. BUSEY, of Washington, D. C., and entitled

A CONTRIBUTION TO THE PATHOLOGY OF THE CICATRICES OF PREGNANCY.

The author of the paper began with a review of the literature of the subject, in which were presented the views of Credé, Schultze, and Hecker, which relate especially to the value of these scar-like streaks and spots, as a sign of existing or previous pregnancies. Then followed a discussion of the anatomy of the stræ, and the nature of the lesion giving rise to those appearances. Dr. Busey reached the conclusion that the stræ were not caused by rupture of the Malpighian layer, as generally believed, nor separation of the fibres of any of the layers of the skin. In conclusion, he maintained that the stræ of pregnancy were localized atrophies of all the constituent layers of the integument, with compression and partial obliteration of the lymph-spaces.

On motion made by Dr. Barker, the discussion of the paper, which its high scientific character rendered impossible without special preparation, was omitted.

PROLAPSE OF THE OVARIES.

DR. PAUL F. MUNDÉ, of New York, read a valuable paper on the above subject, restricting his remarks to intrapelvic dislocation of the normal or but slightly enlarged ovaries. He reached the following conclusions, based upon observations made in 1,600 unselected gynecological cases:

1. The subject of prolapse of the ovaries had not received, in the text-books and periodicals, the attention which its importance as a separate affection demanded.

2. Ovarian prolapse, owing to the normal mobility of the organs, was a very common affection, frequently accompanying retro-displacement of the uterus, and in by far the greater number of cases the displacement was backwards into Douglas's pouch.

3. The normal, not markedly enlarged ovaries, frequently prolapsed, either in consequence of retro-displacement of the uterus, sudden jarring of the body, puerperal subinvolution, or menstrual congestion. More frequently still did prolapse occur in consequence of moderate enlargement of the ovaries through engorgement or inflammatory hyperplasia.

4. Their prolapsed conditions caused even normal ovaries, in time, to become hyperæmic, hyperplastic, and hyperæsthetic, partly through vascular obstruction and partly through the injuries to which they were subjected during defecation and coition. Already enlarged and degenerated ovaries, for similar reasons underwent a more rapid pathological change in consequence of their displacements.

5. In rare instances displaced ovaries had been found to become spontaneously replaced; thus, after the cessation of menstrual engorgement and through accidental favorable positions of the patient. As a rule, however, a displaced ovary required replacement by artificial means.

6. The symptoms caused by displacement of the normal ovaries, while more or less vague, were sufficiently severe to attract the attention both of the patient and the physician.

7. The diagnosis of ovarian prolapse was exceedingly easy to the practised touch *per vaginam*, rectum, or by conjoined manipulation.

8. The treatment consisted in replacing the organs manually, or by position, or by replacing the uterus, if displaced, which was readily possible if the ovaries were not adherent, and then retaining them in position by tampons or properly constructed pessaries adapted and moulded according to the needs of each individual case. If feasible, it was advisable in every case, to endeavor, first, to relieve the hyperæmia and hyperplasia so long as the organs were readily accessible.

9. Much ingenuity and patience might be required to devise proper means for supporting the inflamed and tender ovaries, which, once replaced, should be treated by the well-known remedies for chronic ovariitis.

10. If the ovaries were adherent the treatment resolved itself into antiphlogistic and narcotic measures. In cases of great local or constitutional disturbance, the last resort, their removal, might be suggested and adopted.

ANNUAL ADDRESS BY THE PRESIDENT.

The President, DR. T. GAILLARD THOMAS, of New York, then delivered the annual address on the subject—

THE GYNECOLOGY OF THE FUTURE AND ITS RELATION TO SURGERY.

The introductory portion of the address consisted of words of welcome on the pleasant reunion, reference to the influence of such societies, a tribute of respect to the late Marmaduke B. Wright, M. D., of Cincinnati, Honorary Fellow, and a return of sincere thanks to the Society for the honor conferred upon him by electing him their presiding officer. He then passed to certain general considerations in reference to the department to which the members were especially devoting themselves, and followed with a notice of some of the chief influences which retarded gynecological and obstetric progress. Chief of the latter was the lack of facilities for demonstration of special views and operations. The result was, regarding clinical midwifery and gynecology, that a spirit of dogmatism had been creeping into our literature, that weakened them and gave strength to their opponents. It was the spirit of dogmatism that created so many diversities of opinion among pathologists with reference to points upon which all should agree, and gave to remedial measures such exaggerated prominence for short periods.

A few of the once popular remedial measures were mentioned, such as sponge-tents, cervical section, etc.,

but which to-day stood upon their proper basis as valuable diagnostic and surgical resources. No one familiar with Emmet's operation for trachelorrhaphy could doubt its beneficent results, and yet even that seemed destined to do a certain amount of evil before it stood upon reasonable middle ground. The proper use of such procedures as mentioned he did not criticize, but he censured all who adopted those, or any others, as cure-alls and overcame the doubts of the inexperienced by exaggerated and dogmatic assumptions.

Another great need, not only in the department of gynecology and obstetrics, but in general medical literature, was proper reviewing of books and pamphlets. The ringing tones of just and honest criticism, were rarely heard. He suggested that a standing committee on reviews be established, which should, as a body, pronounce judgment on current literature in their department. The opinion was still to a too considerable extent prevalent, that nearly all of the operations in obstetrics and gynecology could be as well performed by the general as by the special surgeon. Passing to the theme of his discourse, he remarked, that until 1850 gynecological surgery, justly speaking, had no existence; that all was uncertain as to principles. During the following decade it received a very great impulse. In 1846 anaesthesia was given to man, and, Minerva-like, gynecological surgery sprang into renewed life at the hands of Simpson in Scotland, Baker Brown in England, Marion Sims in America, and Gustav Simon in Germany. It became subject to abuse, however, and to prevent the pendulum from swinging too far in an opposite direction, should it not be boldly asserted to the profession at large that gynecological and obstetric surgery stands to-day upon tenable, reasonable middle ground? He assumed that an enlightened conservative surgery was the pivot around which was to revolve the gynecology of the future. But he did not urge the claims of surgery at the expense of those of constitutional treatment in gynecology: the two should work together, if the greatest good was to be obtained; the one, however, never being substituted for the other. Medical and surgical gynecology were united by what the mechanic called dovetailing. The speaker then referred in severe terms to the body of men whose peculiar function was to decry every advance, to depreciate every effort at progress, and, under the fraudulent guise of conservatism, to smother every attempt at improvement by abuse and misrepresentation. A wise conservatism was like a compass to the mariner, but its "counterfeit presentment" was what he denounced. Recognizing and fully appreciating that the gynecological surgeons of our times were steadily advancing upon the road of progress, and assured that those procedures which had been most abused now stood upon the safest foundation, the Fellows were urged to strive without ceasing to bring more and more completely the pathology of their department under the domain of their senses and the control of their hands.

On motion made by DR. WHITE, of Buffalo, the thanks of the Society were extended to the President for his able address.

After the President's address, a paper presented by MR. T. SPENCER WELLS, of London, England, was read by the Secretary. It was entitled

A REPORT OF A SUCCESSFUL CASE OF BATTEY'S OPERATION.

The patient was aged 50 years, both ovaries were removed, and she recovered. The terrible pain from

which she suffered before the operation was not entirely removed, but sufficiently so to cause the woman to say that she had been paid for undergoing the operation.

Discussion upon Dr. Mundé's paper being next in order,

DR. ROBERT BATTEY, of Rome, Ga., remarked that he had not been able to connect prolapse of the ovary with disease of the organ in the relation of cause and effect. In by far the greater majority of cases, prolapsed ovaries were diseased, but on the other hand he called to mind numerous cases of diseased ovaries entirely unassociated with prolapse of the organ.

For the relief of ovarian and uterine pain he had employed "Mrs. Betts's utero-abdominal supporter" with great benefit.

The discussion was continued by Drs. Skene, Goodell, Buzeman, and Reamy; and on motion made by Dr. Albert H. Smith, of Philadelphia, was postponed until the afternoon session.

The Society then adjourned to meet at 2 o'clock P.M.

SECOND DAY.—AFTERNOON SESSION.

The Society was called to order at 2 P.M. by First Vice-President DR. H. P. C. WILSON, of Baltimore.

INVITED GUESTS.

The following gentlemen were elected members by invitation: Drs. James E. Morgan, F. Howard, S. O. Ritchie, of Washington, D. C.; and Dr. Hunter, of Martinsburg, Va.

The next business in order being the discussion of Dr. Mundé's paper.

DR. FORDYCE BARKER, of New York, remarked that in treatment the thing to be accomplished was to restore the organ, as far as possible, to its normal position, to keep it there, and to obviate or remove all the causes which developed or perpetuated that pathological condition.

Attempts at replacing the prolapsed organ were not always successful, yet it is always worth while to make the attempt; and for overcoming plastic exudation, he suggested hot-water injections and the use of mercury in the form of minute doses of the protoxide continued for some time.

To retain the organ in position he recommended the cotton tampon, aided by a solution of tannic acid, equal parts with water.

To correct the habit of constipation, he was accustomed to give a laxative composed of equal parts of sulphate of magnesia, carbonate of magnesia, tartrate of potassa, and sulphur.

DR. S. C. BUSBY, of Washington, D. C., remarked that his experience corroborated almost entirely that expressed by the author of the paper. From his experience he would say, however, that structural changes in the ovaries were secondary, and usually secondary to displacement of the uterus. He thought that external abdominal support acted by restoring the equilibrium of pressure which the superincumbent viscera exerted on the pelvic organs.

DR. ALBERT H. SMITH, of Philadelphia, thought that if the subject of prolapse of the ovaries received more attention than it did, if its importance were more fully recognized, and more careful examination made with regard to that condition, there would be a lesser number of cases in which the patient went about from one physician to another, and submitted to one and another form of treatment. He thought that, in most cases of prolonged pelvic trouble, painful in character, and in which various methods of treatment had been adopted without benefit, prolapse of the ovaries

was the pathological condition present. He had not seen good results from the treatment of prolapsed ovaries by means of pessaries. He had obtained the best results from the use of a simple bag of tarlatan stuffed with tannic acid. There were many cases, doubtless, which could not be relieved unless it was by means of Dr. Battey's operation.

The discussion was continued by Drs. Chadwick and Battey, and was closed by Dr. Mundé.

DR. JOHN BYRNE, of Brooklyn, read the next paper, which had for its title

KOLPO-CYSTOTOMY BY GALVANO-CAUTERY.

Kolpo-cystotomy as a means of restoring continuous artificial drainage of the bladder was an American operation. The author then gave a history of the operation, and exhibited his instrument by means of which it could be performed without the destruction of tissue beyond the outline of its blades. He had not used the thermo-cautery, believing it to be dangerous and unsuitable for operations in cavities among delicate structures, even when guarded by Wilson's jacket.

The paper being before the Society for discussion, DR. HENRY J. GARRIGUES, of New York, remarked that he could not entirely endorse the criticism offered by Dr. Byrne regarding the thermo-cautery. From personal experience he was not aware that the radiating heat was less from the galvano-cautery than from the thermo-cautery. That, however, could be determined by physical experimentation.

The paper was also discussed by Dr. White, and the discussion was closed by Dr. Byrne.

The next paper was one presented by DR. ISAAC E. TAYLOR, of New York, but, on account of lack of time, was not read. Its title was

COMPLETE CONGENITAL AND ACCIDENTAL ABSENCE, OR ATRESIA OF THE VAGINA IN THE PREGNANT AND NON-PREGNANT FEMALE; TREATED BY THE TEARING OR LACERATING PROCESS,

and the following is a brief abstract.

The treatment of this class of cases had always been regarded by surgeons as difficult, and as liable to give rise to serious, if not fatal results. Whatever the exact nature of the defect might be, it was conceded that the accidents which caused death when the operation was performed were nearly identical.

The vagina might be totally or only partially absent. In some instances the vagina had an opening into the rectum, the anus, or the urethra, and pregnancy occurred.

Dr. Taylor then related a case of complete congenital atresia of the vagina, with pregnancy and safe delivery of a living child. It was treated by the tearing process with the finger-nail. The mother made a good recovery. In that connection he presented the case reported by Dr. R. P. Simmons in the *St. Louis Medical Examiner*, in February, 1847. In that instance the knife was used, and the child was safely delivered. Dr. Simmons asked the question, and Dr. Taylor joined in the query, How did the menstrual fluid find its exit in either case from the uterus, and by what law of the animal economy did conception take place? Was there a vicarious secretion from the inner surfaces of the labia pudenda or contiguous parts, or did the menstrual fluid permeate the fibrous structure blocking up the whole of the vagina? These were cases of atresia not traceable to either disease or accident, in which the vagina was almost closed, the most careful examination, however, failing to detect the minutest opening.

Dr. Taylor did not adopt the opinion that a vicarious discharge or transudation of menstrual fluid occurred through the dense fibrous structure, or through the anus, or through the bladder. The opening was sometimes so small that it was recognized, if recognized at all, only with the greatest difficulty.

For this class of cases, Dr. Taylor recommended operative procedure, which consisted in tearing the tissues. His first operation was in 1866, in the pregnant, and in 1867 in the non-pregnant. Dr. Emmet had published, in 1866, three cases in which the opening was made by the tearing process, but of these cases Dr. Taylor did not know when he operated. Amussat's case was published in 1835, and the operation was performed by the tearing process in 1832. M. Debrun treated a case in the same manner in February, 1847, and published it in March, 1851, but he was anticipated by Simmons in this country, who operated in November, 1846.

He disapproved entirely of operating through the rectum in either class of cases. If the obstruction was epithelial or connective tissue, the tearing or lacerating process by the finger-nail, or a convenient instrument, would succeed. If the structure was dense, recourse must be had to the knife, trocar, or scissors. Dr. Taylor preferred to operate when the uterus was quiescent, and pressure on the uterus for evacuating accumulated menstrual fluid should be avoided. Forcible injection of the uterus with warm water should be avoided. He believed that in such cases, after an operation, marriage was permissible. In cases in which the atresia existed in the pregnant, he believed it would be safer to defer the operation until the labor began, than to operate earlier.

MEASUREMENTS OF THE UTERINE CAVITY IN CHILD-BED

was the name of a paper then read by Dr. A. D. SINCLAIR, of Boston. It contained an analysis of 108 cases, and was mostly statistical. The average length of the uterine cavity in the 108 cases was 3.02 inches. The average length of the uterine cavity in 75 primiparæ was 2.94 inches. The average length of the uterine cavity in the 33 multiparæ was 3.21 inches.

The Society then adjourned to meet on Friday, at 11.30 A.M.

FRIDAY, SEPTEMBER 19TH.—THIRD DAY—MORNING SESSION.

The Society was called to order at 10.30 A.M., by the President.

THE EARLY APPLICATION OF THE FORCEPS IN THE FIRST STAGE OF NATURAL LABOR.

DR. ISAAC E. TAYLOR, of New York, read a suggestive paper on the above subject, which embraced the following views: He distinguished natural from lingering or protracted labor. In natural labor the soft structures yielded kindly and without injury, while in tedious and prolonged labor they became irritable, congested, and oedematous, and there was imminent danger of injury being produced. Interference in the process of labor, when it was going on well, was unjust and reprehensible. The views entertained by Nægele, Ramsbotham, Collins, and Schroeder, regarding interference in the second stage of labor, Dr. Taylor regarded as extravagant fears of mischief, and he thought no intelligent practitioner of the present day would yield to such doctrines. Those writers, however, had ignored the first stage of labor, and believed that no harm followed its continuance for from 60 to 160 hours, so long as the membranes were entire

and the liquor amnii not escaped. From that view Dr. Taylor dissented, and asked, "*Are the structures of the powerful and hard-taxed uterus, body, and cervix of no value? Is the pressure of the child's head on the lower part of the body of the uterus or the superior part of the cervix, when the head is capped by the cervix itself, the pains active and steady, and no advance made for some hours, of no moment? When is nature to cease pegging away?*"

The practice in such cases, which he had followed for nearly eighteen years, if the uterus did not relax, and the head of the child did not adapt itself properly to the os, membranes ruptured or unruptured, even though the os was not open more than one or one and a half inches, and no unfavorable symptoms, except the fact that the labor did not progress, was not to place his patient under "the ban of time," but proceed to abbreviate the first stage the same as he would a prolonged second stage of labor, and he did it in the following manner: he introduced his thin, narrow bladed forceps (the ordinary forceps being too wide), and brought the head of the child properly in contact with the undilated cervix and lower part of the body of the uterus without using any forcible traction whatever. The obstruction was at the upper part of the cervix. The os might be dilatable or not, but unaided nature could not overcome the difficulty in the cervix, and sometimes sought relief by rupture of the uterus at that point. To deliver such cases safely sometimes required one or two hours, or even more, but yet the whole length of the labor was very much shortened. The object of the forceps was simply to retain the head of the child in contact with the os uteri during and after a pain, and in some cases to aid in flexing the head so that the occiput might become the natural dilator of the cervix. After fifteen or twenty minutes, if the os uteri was found to be more dilated, the forceps were removed at the beginning of a pain, and the head sometimes effected the dilatation sufficiently to escape through the os, and then the labor progressed, and was completed, naturally or otherwise, according to circumstances. The forceps might be reapplied a few minutes after their removal, and so the relay treatment might go on, and the forceps be applied and reapplied three or four times. The inexperienced in the management of these cases should not resort to the forceps unless they had had some practical experience in their use in the second stage of labor. It was equally important to know when to cease traction.

The "novelty" of the propositions had passed away, the "revolutionary" change had taken place, and the "innovation" had existed since 1863, although Dr. Johnston, without giving due credit to its originator, had adopted the method in 1871, and had been convinced of its great value in saving the life of both mother and child in 118 such cases. In experienced hands, the operation, if carefully and skilfully performed, was a safe procedure, and illustrated the "scientific frontier." Every obstetrician should know *why, when, and how* to interfere in the parturient process.

The paper was discussed by Drs. White of Buffalo, Howard of Baltimore, Reamy of Cincinnati, and Dr. Taylor.

DR. WILLIAM GOODELL, of Philadelphia, then read a paper entitled

CLINICAL NOTES ON THE ELONGATIONS OF THE CERVIX UTERI.

In this paper, the author gave his views with regard to the etiology and pathology of the two forms of

prolapse of the womb, viz., the elongation of the supravaginal portion of the cervix, and that of its infravaginal portion. The former he regarded as due to the traction of a prolapsing bladder and vagina upon a womb made ductile either by subinvolution or by chronic congestion. He believed that that form of elongation was not congenital, but acquired. The author had, however, seen it once in a sterile married woman, and twice in virgins who had passed the climacteric.

In view of the very unsatisfactory results from the usual operative treatment of that very frequent form of prolapse, the author gave the history of twelve of his cases, these being the only ones of which he could keep track for any length of time. Each one had the vaginal portion of the cervix cut off, either by the cold wire or by the hot wire, and in each one the vulvo-vaginal outlet was narrowed by the operation of colpo-perineorrhaphy. The wire was used because, in the author's opinion, some suppurative action was needed to bring on retrogressive metamorphosis in the redundant portion of the cervix. The results were as follows:

Three women, since the operation, had been under observation for from five to six years, and had remained cured. Four women had thus far kept well for from two and a half to four years. Three women had not, up to the present time, exhibited the slightest symptoms of relapse, for six months, for one year, and for one year and a half respectively.

One woman, after staying well for four years following the operation, became pregnant and gave birth to a living child. Her perineum was again torn, and the bladder and vagina were beginning again to prolapse. One woman was cured of the cervical prolapse, but not of her cystocele or of her rectocele.

In the amputation of the cervix, the author preferred the cold wire to the hot one, because the danger from secondary hemorrhage was much less, and because the surrounding mucosa could be slid over and stitched to the stump, to which it would unite by granulations, and thus lessen the area of cicatricial contraction.

Elongation of the infravaginal portion of the cervix the author deemed either a congenital affection or an exaggeration of a congenital affection. True longitudinal hypertrophy he considered as essentially an affection of virgins or of sterile women. Of this variety he has seen seven cases in which the cervix either appeared at the vulva or protruded from it. Under the form of conical cervix, it was, however, very frequently met with, but the elongation was then limited.

With regard to the indications for the treatment of this elongation there could be no question. Since suppurative action was not needed, the redundant portion ought to be cut off by a sharp instrument, and not by the cold or the hot wire. The surrounding mucosa was then sewed to the mucosa of the os uteri by radiating stitches, which will prevent cicatricial contraction.

Dr. J. C. REEVE, of Dayton, Ohio, opened the discussion by remarking that there were two points to which he wished to call attention:

1. The paper presented cases from actual practice upon a subject concerning which there was a great diversity of opinion.

2. If he correctly understood the subject, it was the prevailing doctrine that all the evil effects which followed laceration of the cervix were mechanical. To that doctrine, however, he did not subscribe, but believed that the evil results were due to such conditions as subinvolution, and others produced by the

injury to the cervix. To the preparatory treatment required he was inclined to give the credit of cure fully as much as to the surgical operation.

Dr. ALEXANDER DUNLAP, of Springfield, O., remarked that he had never met with a case of supravaginal elongation of the cervix. He had met with cases in which there was infravaginal elongation of the cervix, and in one the projection was nearly two and a half inches, produced sterility, and had very much the feel and appearance of the male organ. In that case he gave directions regarding sexual congress, so that the semen might be brought in direct contact with the mouth of the elongated cervix. Pregnancy occurred, and the woman subsequently bore children without hindrance. He would not, therefore, recommend amputation in all cases, certainly in married women.

Dr. A. J. C. SKENE, of Brooklyn, remarked with regard to treatment, that he had followed that recommended by Dr. J. Marion Sims, and that he was fully satisfied with the results obtained. He was confident, so far as his own experience went, that Dr. Reeve was perfectly right regarding mechanical irritation. He did not believe that the good result depended entirely upon the suppuration that followed the operation, for oftentimes the hypertrophy rapidly disappeared when only a very small portion had been removed and there was only a trifling amount of suppuration.

The discussion was continued by Dr. Isaac E. Taylor, of New York, and closed by Dr. Goodell.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY AS RELATED TO INSANITY IN WOMEN.

Dr. A. J. C. SKENE, of Brooklyn, presented a valuable paper on the above subject, which would have been read had time permitted. The following is an abstract.

In making observations in gynecological practice in the Brooklyn Insane Asylum he had met with an entirely new phase of practice, in which the ordinary methods of investigation were of little value. He was obliged to devise a new method of examining patients, and the system of investigation adopted and the phenomena observed, together with the deductions drawn from them, formed the subject-matter of his paper. He restricted his discussion to the relations which gynecology bore to insanity.

With reference to the way in which diseases of the sexual organs caused insanity, the rule has been to attribute insanity, when developed during the existence of uterine or ovarian disease, to reflex action. No doubt that was an important factor in the cause of mental derangement, but it was far from covering the whole ground. There were many cases of insanity that could be traced to the sexual organs, but in which reflex action took no part.

One of the most marked and important causes of insanity in women was clearly traceable to frequent child-bearing and lactation among the poorer classes. That he had proved by clinical observations. There was too little in our literature on the subject of mania caused by the exhaustion of the nervous system from child-bearing and nursing. Our books told us of anæmia from prolonged lactation, but said little of the nervous exhaustion which might or might not accompany the anæmia.

From cases in his own practice he was satisfied that occasionally the normal functional activity of the reproductive organs tended to undermine the brain and nervous system to an extent sufficient to lead to insanity.

He was also satisfied that the prevailing opinion

that insanity, as the result of reflex action, occurred very frequently at puberty and the menopause, was not always true. The point which the author of the paper made was that a clear distinction should be drawn etiologically between insanity caused by existing active disease of the sexual organs and insanity arising from brain-exhaustion produced by prolonged or excessive functional activity of those organs while free from disease, and he inclined to the opinion that as many or even more cases could be traced to the latter as to the former.

To the question, "What is the effect of insanity upon the function of the reproductive system?" Dr. Skene gave the formulated answer, that well-developed insanity with impaired general nutrition caused suppression of the functions of the sexual organs; that deranged innervation tended to produce the same result; that, in mild forms of insanity, menstruation might continue normal; that excessive menstruation among the insane was usually caused by uterine disease, and should be accepted as evidence of such.

To the question, "What effect did insanity exert upon diseases of the sexual organs?" he gave the answer that insanity tended to cure *functional* diseases of the uterus, but that such a conclusion could not be applied to other forms of local disease of an *organic* character. Organic diseases of the sexual organs tended to retard the recovery, but very much relief could be afforded in such cases by the art of gynecology.

To the question, "What are the ascertained effects upon the insane, of curative treatment regarding co-existing diseases of the sexual organs?" the doctor gave the following answer: that the acute affections of the brain and nervous system, wholly due originally to disease of the sexual organs, would be relieved in a large majority of cases by curing the primary affection, and the general condition of insane women would be improved by restoring the sexual organs to health.

Dr. Skene then directed attention to the question of *diagnosis* among the insane, and spoke of the difficulties of obtaining requisite clinical information. Physical examination had been beset with difficulties. Ether as an anæsthetic had been practically unsatisfactory. He used nitrous oxide gas, and had found that it answered the purpose admirably. The physical signs of disease varied but little from those found in ordinary cases. There was marked absence of tenderness, the vagina and cervix in cases of some standing were found to present the appearance seen after the menopause, and the rectum was, as a rule, impacted.

The diseases which occurred were not peculiar or worthy of special notice, and the treatment of diseases of the reproductive organs among insane women was based upon the general principles which guided us in ordinary practice, with such modifications as the peculiarities of this class of cases might demand.

DR. J. TABER JOHNSON, of Washington, D. C., then read a paper on

MISMANAGED LABOR THE SOURCE OF MUCH GYNECOLOGICAL PRACTICE.

He referred to the wonderful achievements and rapid growth of gynecology. Diseases were now completely relieved which a generation ago were considered incurable. The diseases of women have greatly multiplied, until it was nearly as difficult in this day to find a perfectly healthy woman as it was for Diogenes, in his age, aided by his lantern, to find a perfectly honest man. The doctor thought that there was a tendency

in the minds of the profession to the study of gynecology, to the neglect of the more important department of obstetrics, and illustrated his statement by referring to the fact that, of the seventy-one papers in the three volumes of the Society's transactions, only sixteen of them related to obstetrics, and that of the sixty-one articles and discussions in the July numbers of the American and British obstetrical journals only twenty of those were devoted to obstetrical subjects. He referred to midwifery as the more important branch, "because, while in the former (gynecology) we render our patients much more comfortable, and at times prolong life; in the latter (midwifery), by our operations and skill we not only save maternal and fetal life at the same time, but prevent the necessity of our patients calling upon the gynecologist in the future at all, by preventing the occurrence of those conditions requiring their aid."

The object of the paper was stated to be to draw attention to the fact that gynecology derived much of its prominence and importance from the mismanagement of obstetrical cases and faulty treatment during the puerperal month. There was a growing tendency among general practitioners in the direction of assuming the responsibility of severe obstetrical operations and treatment without skilled counsel, which was not apparent in the field of gynecology. If the experienced accoucheur is not always able to avert danger, damage, or death, how much less could those who only occasionally attend cases of confinement, and are not acquainted with recent obstetrical text-books and literature.

A lengthy reference was made to the faulty management of abortion and its subsequent treatment, in allowing the placenta and secundines to remain undelivered in cases requiring manipulation for their removal.

The doctor declared that a patient was entitled, while undergoing the agony and enduring the exhaustion of lingering or difficult labor, to the best of skill and the most improved instruments, and that the physician who attempted the performance of the capital operations in obstetrics without those necessary factors of success, when they were within his reach, assumed a very grave responsibility.

The paper closed with an appeal for a greater study of obstetrics and its clinical teaching in our colleges in the future, as the best means of preventing many of the conditions which we have to treat in gynecology.

The Society then adjourned to meet at 3 P.M.

THIRD DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by the President.

The first paper was read by DR. J. C. BREVE, of Dayton, Ohio, and consisted of a

REPORT OF A CASE OF EXTRA-UTERINE PREGNANCY—TREATMENT BY THE USE OF ELECTRICITY.

The case was treated successfully by the use of electricity, beginning at what was presumably the end of the third month of pregnancy. It was applied daily, from the 28th of March until the 5th of April. On the 15th of April the patient was decidedly better. On the 11th of May there was a marked change in the condition and appearance of the breasts—more flaccid. June 4th, the tumor was much higher than formerly; oblique diameter decreased two-thirds; menstruation repeated. August 1st, sound introduced, and uterus found to be of normal depth.

The subject of extra-uterine pregnancy was then

discussed by Drs. Wilson, Howard, Reamy, White, Mundé, Battey, and the President.

A NEW METHOD OF PERFORMING DECAPITATION

was the title of a paper presented by DR. W. L. RICHARDSON, of Boston.

The object of the paper was to show: *first*, that in all cases in which there is no hope of saving the life of the child, the condition of the mother is such as to necessitate operative interference; the child cannot be delivered easily, either by the forceps or version, and if the neck of the child can be reached, the operation of decapitation is indicated. *Second*, this operation is then best performed by means of the decollator of Carl Braun and the decapitating knife of Ramsbotham—the former being used to break the vertebral column, and the latter to divide the soft cervical tissues.

KOLPOCEPTASIS VERSUS KOLPOKLEISIS, AS ILLUSTRATED IN A CASE OF ATRESIA OF THE VAGINA WITH RECTO-UTERO-VAGINAL FISTULE,

was the title of a paper presented by DR. NATHAN BOZEMAN, of New York, which would have been read had the time permitted. He used the word kolpoceptasis (to stretch the vagina) in contradistinction to the word kolpokleisis (to close the vagina). The case reported illustrated the meaning of both terms.

The following papers were read by title:

"The Relations of Symptoms to Versions and Flexions of the Uterus." By Dr. E. Van de Warker, of Syracuse, N. Y.

"The Justo-Minor Pelvis, with the Report of a Case." By Dr. W. T. Lusk, of New York.

"Chronic Inversion of the Uterus." By Dr. W. H. Byford, of Chicago.

"The Analysis of Five Hundred Gynecological Cases." By Dr. G. H. Bixby, of Boston.

"In Memoriam—Marmaduke B. Wright, M.D." By Dr. T. Parvin, of Indianapolis.

The hour for adjournment having arrived, the President, DR. T. G. THOMAS, expressed his gratification over the success of the meeting, and, thanking the Fellows for the uniform courtesy extended to him, resigned the chair in favor of his successor, Dr. J. Marion Sims, of New York.

DR. SIMS took the chair, and, with a few appropriate words, accepted the presidency of the Society.

On motion, made by DR. H. P. C. WILSON, of Baltimore, the Society tendered to Dr. Thomas its thanks for the impartial manner with which he had presided over its deliberations.

DR. THOMAS made an appropriate response.

DR. WILSON gave notice of a proposed amendment to the constitution and by-laws, to the effect that, hereafter, the officers shall be nominated in open Society, and not by a committee on nominations.

The President then declared the Society adjourned to meet on the *first* Wednesday in September, 1880, in the city of Cincinnati.

The following are the officers elected for the ensuing year:

President: DR. J. MARION SIMS, of New York.

Vice-Presidents: DR. ROBERT BATTEY, of Rome, Ga., and DR. W. T. HOWARD, of Baltimore, Md.

Council: DRs. W. GOODELL, of Philadelphia; E. W. JENKS, of Chicago; A. D. SINCLAIR, of Boston, and A. J. C. SKENE, of Brooklyn.

Secretary: DR. JAMES R. CHADWICK, of Boston.

Treasurer: DR. PAUL F. MUNDÉ, of New York.

The following gentlemen were elected Fellows: Dr. John Scott, of San Francisco; Dr. Edward L.

Duer, of Philadelphia; Dr. R. Stansbury Sutton, of Pittsburg, Pa., and Dr. J. W. Underhill, of Cincinnati, O.

The time for holding the annual meeting was changed from the third to the *first* Wednesday in September.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 5 to October 11, 1879.

SUTHERLAND, CHARLES, Colonel and Surgeon. To report in person to the Comd'g General Mil'y Division of the Pacific, for duty as Medical Director of that Division. S. O. 229, A. G. O., Oct. 4, 1879.

IRWIN, B. J. D., Major and Surgeon. To report in person to the Comd'g General, Dep't. of Dakota, for assignment to duty. S. O. 229, C. S., A. G. O.

WOLVERTON, W. D., Major and Surgeon. To report in person to Comd'g General Dept. of Dakota, for assignment to duty. S. O. 229, C. S., A. G. O.

MUNN, C. E., Capt. and Asst. Surgeon. To report in person to the Comd'g General Dept. of the Missouri, for assignment to duty. S. O. 232, A. G. O., Oct. 9, 1879.

FINLEY, J. A., 1st Lieut. and Asst. Surgeon. Granted leave of absence for four months. S. O. 230, A. G. O., Oct. 6, 1879.

MOSELEY, E. B., 1st Lieut. and Asst. Surgeon. Having reported in person, relieved from duty at Fort Robinson, Nebr., and to report in person to the Dept. Comd'r at Rawlins, Wy. T. S. O. 89, Dept. of the Platte, October 6, 1879.

BIART, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one year on surgeon's certificate of disability, to take effect Oct. 1, 1879, with permission to go beyond sea. S. O. 232, C. S., A. G. O.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. To repair to Fort Benton, M. T., and to report to the Post Commander for duty as Post Surgeon. S. O. 106, Dept. of Dakota, Sept. 30, 1879.

PHILLIPS, H. J., Capt. and Asst. Surgeon. Died at New York City on October 10, 1879.

Obituary.

EUGENE PEUGNET, M.D.,

FORDHAM, NEW YORK.

DR. EUGENE PEUGNET, of Fordham, N. Y., died in his forty-third year, Friday, October 10, 1879. The day previous, while walking on the railroad track, near Mt. Vernon, N. Y., he was run over by the locomotive of an express train, which crushed and partially severed both lower extremities. When picked up he was perfectly conscious, and, with a full appreciation of his desperate condition, gave directions for the treatment of his case, and even discussed with his friends the character of amputations necessary. At his request, the amputations were performed, but he sank and died a few hours afterward. Dr. Peugnet received his preliminary education in New York, and at an early age attended lectures at the College of Physicians and Surgeons, graduating from that institution in March, 1858. After serving a term of internship in Bellevue Hospital, he commenced practice in this city. At the breaking out of

the war he went to the field as Surgeon of the 71st Regiment, was captured at Bull Run while heroically attending the wounded, and was imprisoned for a considerable time in Richmond, Va. After the war he removed to Fordham, where he continued actively working in his profession until his death. His contributions to science were in the shape of many well-written papers, which were published in *THE MEDICAL RECORD*, *N. Y. Medical Journal*, and *American Journal of Medical Sciences*. He was a careful student, a terse writer, and possessed an eminently logical mind. He was a member of the different medical societies of this city, and was an active worker in them. As a practitioner he enjoyed a large patronage, and was alike kind to his patients and scrupulously honorable to his professional brethren. His funeral services were held at the Church of St. Vincent de Paul on Monday, October 13th.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 11, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlat. Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 4, 1879....	0	11	34	1	14	20	0	0
Oct. 11, 1879...	0	14	86	3	21	33	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 8th to October 14th, inclusive, was 76, and the number of deaths that occurred was 37. The total number of new cases for this year to October 15th is 1,479, and the total number of deaths, 517.

OUT-DOOR POOR RELIEF.—For the purpose of affording medical relief to the out-door poor, Cincinnati is divided into twenty-five districts, with a physician attached to each district. These physicians make annually between two and three thousand professional visits. Most of the visits are to persons who would, without them, be obliged to go to a city hospital. Thus, much money is saved to the city and greater satisfaction afforded, in most cases, to the patients. Such systems, more or less modified, exist in many other cities, and they might be still further extended with great saving to the city purse.

THE AUDIPHONE.—This is a new instrument for assisting the hearing of the moderately deaf. It consists of a flexible sheet of hard rubber with a handle attached, the whole resembling very much an ordinary fan. A string is attached in such a way that the rubber plate can be bent over towards the handle to a greater or less curve. The instrument is held in the hand and the top edge laid against the teeth, the convexity of the curved plate being out. The apparatus is quite ornamental, and is probably of assistance in some forms of deafness.

MEDICAL COLLEGE OF THE UNIVERSITY OF VERMONT.—This college graduated a class of forty-nine at its last commencement, having rejected fifteen per cent. The total number of students in attendance was 151.

SEA-SIDE SANITARIUM.—This institution has done a larger work this summer than ever before. Nine thousand five hundred sick children have been taken out on excursions. Sixteen hundred and twenty-five children have spent a week at the Sanitarium; the total cost has been only \$6,425.

THE LEPER IN THE MIDDLE AGES.—Among the Christians in the Middle Ages a leper died in the eyes of the law as soon as he became a leper, and the church had a burial service read over him. After this he was separated from men and was virtually dead to this world.

HARVEY'S REMAINS.—It was proposed a year ago to have Harvey's remains removed to Westminster Abbey. Nothing has yet been done towards this, however. The church where they now lie is not in good condition, the vault is wet, and coffin covered with stones.

CHOLERA IN INDIA.—Cholera has broken out among the British troops advancing into Afghanistan.

VERMONT PHARMACEUTICAL ASSOCIATION.—The tenth annual meeting of the Vermont Pharmaceutical Association was held at Burlington, October 7th and 8th.

ALEXIS ST. MARTIN.—It is comforting to learn that this much-talked-of individual is still alive and hearty. He is living at St. Thomas, Province of Quebec, Canada.

NATIONAL BOARD OF HEALTH.—Dr. H. I. Bowditch has written a letter to the *Boston Medical and Surgical Journal* defending the National Board of Health from the many attacks it is now receiving. Dr. Bowditch is convinced that the board has worked hard and economically during the past summer. He is also much impressed with the care that is taken in expending the money at its disposal. As an example, he states that in a bill for personal expenses, the item "for washing" was struck out and disallowed. He credits the board also with having, to a very large extent, prevented the spread of the fever beyond Memphis.

INSANE ASYLUM CONSULTING BOARD.—Board of Consulting Physicians and Surgeons appointed for the Insane Asylums of the Department of Public Charities and Correction: Drs. James R. Wood, Austin Flint, Jr., E. G. Janeway, M. A. Pallen, A. McL. Hamilton, C. I. Pardee, J. P. P. White, A. L. Loomis, Whitman V. White.

A NEW MEDICAL SCHOOL.—The College of Physicians and Surgeons—has recently been organized in St. Louis. It opens with a preliminary examination, and promises to demand a high grade of scholarship.

DR. L. P. YANDELL, who has been travelling in Europe and writing home very interesting letters to the *Medical News*, has just returned to his home in Louisville.

THE NEW HAMPSHIRE MEDICAL SOCIETY held its semi-annual meeting on Sept. 17th and 18th. Prof. Hubbard read a paper on the "Life and Character of Nathan Smith." Prof. Dunster gave a lecture upon the "Discovery of Anæsthesia." Other interesting papers were presented.

LIBRARY OF THE FACULTY OF MEDICINE IN PARIS.—This library contains nearly 80,000 volumes, many of them being very ancient works. A new catalogue has recently been completed.—*Bost. Med. and Surg. Jour.*

Original Lectures.

TYPHOID FEVER IN INFANCY AND CHILDHOOD.

A CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL,

By A. JACOBI, M.D.,

PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS IN NEW YORK CITY.

(Reported for THE MEDICAL RECORD.)

PART I.

GENTLEMEN:—Some of you, it may be, saw this boy last Wednesday. He then presented himself at my clinic at the College of Physicians and Surgeons, and at that time we made the diagnosis of a complication of broncho-pneumonia with typhoid fever. To-day we shall see whether that diagnosis was correct, and for the purpose of determining that question, let me state what his symptoms then were. As he told his story, he remembered that for a number of days he had a sense of chilliness and cold along the back and extending over the whole body. He complained that he was easily fatigued, that he was tired all the time, and that he had a cough at a very early period of his sickness. He had on Wednesday last all the symptoms of pneumonia, partly bronchial and partly interstitial. I found upon one side of the chest somewhat diminished respiration, a few râles, and a very slight amount of dulness upon percussion; no pleural friction-sound. The dulness extended as far as diminution of the respiratory murmur was rather marked. We reached the diagnosis of pneumonia, chiefly bronchial in character. A few minutes later he was again examined, when it struck me that he had symptoms which, to a certain extent, complicated the diagnosis made. I found, when he was laid upon his back, that he complained of slight pain in his right hypogastric region, over the ileo-cæcal valve, and there was also some gurgling present. I also found a few rose-colored spots in the same region, and now at various points over the chest and abdomen a few spots of the same character can still be seen. At that time it was found that the spleen extended longitudinally more than three and a half inches. It now measures, in the same direction, eight centimetres. I remember also that his temperature was 108° F. (39.5° C.). It was taken at about this hour in the afternoon, and we will now compare it with the record which the thermometer gives to-day. The rectal temperature is now 102½° F.

Let us compare the other symptoms found five days ago with those of to-day.

The temperature is less; there is less dulness all over the left lung; the respiratory murmur is less diminished; and there are less râles than existed last week. Evidently his pneumonia is improving. Furthermore, the spleen is a trifle smaller than it was. The roseola is not so well developed, only a few spots being visible. The pain and gurgling in the right iliac fossa have disappeared. He says that his cough is better, and that he feels better.

I have selected this case for the purpose of directing your attention to a number of cases seen in infancy and childhood, and in which it is not always easy to arrive at a correct diagnosis.

Not infrequently will you see such cases when they are of two or three weeks' standing, and it will be found

that the child has been a little languid, has had slight fever, and been a little morose and peevish in the afternoon and evening. In the morning it has probably seemed quite well, but the same symptoms have returned in the after part of the day, and finally, at the end of a week or two, the child in the meantime getting no better, the parents become anxious and send for a doctor, who is expected to make a diagnosis without delay.

It is just such cases, however, which are among the most difficult to diagnosticate, and therefore I wish to speak of those which present greater difficulties in the way of diagnosis than are seen in the case of the boy before us.

FREQUENCY OF OCCURRENCE.

I will first say that typhoid fever is not rare either in infancy or childhood. It appears that, in the same degree that we learn more of the morbid anatomy of diseases, the number of diseases increases which can be diagnosticated. It is a peculiar fact, also, that it is especially the infectious diseases which have been heretofore presumed to be rare in infancy and in childhood. I will, for instance, remind you of the fact that only a few years ago it was taken almost as an axiom that acute articular rheumatism was of rare occurrence in childhood and equally rare in infancy. I believe I have settled that point in infantile pathology, and have proved, in an essay published some time ago (Seguin's Amer. Clin. Lect., Vol. I., No. 2), that acute articular rheumatism is of *very frequent occurrence* in infancy, and is the frequent cause of endocarditis in children of any age. The same is true with regard to typhoid fever. In former years the disease was almost unknown in children. There was a time when it was known as infantile remittent fever. It was known that there were children who were sick for a number of weeks, who had slight fever in the afternoon, followed by a remission in the morning, perhaps an intermission, and it was called sometimes intermittent fever and now and then infantile remittent fever. That was a justifiable diagnosis before the pathological anatomy in a large number of the cases was recorded. I need not tell you that you have a very great advantage over former physicians, who did not know that every disease must have an anatomical lesion at its foundation. A little time before I was a student in medicine there were many fevers, so called, such as catarrhal fever, rheumatic fever, nervous fever, etc., although the names were not based upon any anatomical substratum. You will recollect from general lectures upon pathology that it was left for Rokitsansky to find the anatomical lesions which always accompanied certain symptoms, and especially with reference to typhoid fever. Only since that time has it been possible to diagnosticate typhoid fever through the anatomical lesions found in the cadaver, and through symptoms corresponding with those anatomical lesions.

SYMPTOMS OF TYPHOID FEVER IN THE ADULT.

I will now repeat what you would expect to find in a case of typhoid fever occurring in the adult, in order to point out what you can expect in the typhoid fever occurring in the young. I shall not enter upon the pathology of typhoid fever, but simply point out the difference between the infantile and the usual adult manifestations of the disease. You would diagnosticate a case of typhoid fever in the adult by a number of different symptoms, of which the principal are the following:—As a rule there are mild chills at the beginning of the disease. Severe chills may be

present at the onset of typhoid fever, but generally only in the beginning of the second week. As a premonitory symptom, then, there is a universal chilliness and a feeling of uncomfortableness. There is a moderate amount of diarrhoea; there is pain upon pressure in the region of the ileo-cæcal valve, and gurgling in that locality. There is swelling of the spleen, and in the adult the increase in size may be such that the organ measures four, five, six, or even seven inches in its longitudinal diameter. In the adult there is generally found over the chest and abdomen a roseolous eruption, occurring usually about the sixth or seventh day, sometimes as early as the fifth. The eruption lasts about one week, perhaps a little more, and then gradually disappears. There may be hemorrhages from the bowels in the course of the second or third week of the disease, and the affection runs its entire course in from twenty to twenty-one days. Now and then relapses will set in, which it is not necessary to attribute to serious errors in diet or other external causes. It is in the nature of the disease that relapses should take place. There are always some ulcerations of Peyer's patches, and relapses may be developed in consequence of the absorption of disintegrated material from these ulcerated surfaces. Such relapses may occur, so that the patient will pass through two courses of typhoid fever within six weeks. Even a second relapse may occur, and usually the last relapse is less severe than the others. I can state that I have seen a case in which three relapses occurred, the patient passing through four typhoid fevers, and making a good recovery; he still lives in this city. In such cases where you do have opportunities to make post-mortem examinations, you will find that the ulcerations are not limited by the ileo-cæcal valve, but they will be found all along the colon, and frequently down in the rectum. Such a case I saw in the body of a lady who had a severe hemorrhage from the bowels on the ninth day of her typhoid fever. The exhaustion was so great that she was pulseless; but her life was saved by transfusion of blood. Forty-one days afterward she died; that is, on the fiftieth day from the beginning of the disease.

In that case I found the original ulcerations partly healed, some entirely covered with newly-formed tissue, and others newly formed low down in the rectum.

Let me add a few words with reference to the *temperature* in a case of typhoid fever occurring in the adult. In severe cases, and in some epidemics, the course which the temperature pursues is quite characteristic. There is a gradual increase in the morning and evening temperature, which has been said to be characteristic of typhoid fever. I think you will find, when you come to practise, that the picture with reference to regularity in the temperature curve in typhoid fever has been overdrawn. You will not find it as it has been represented. I believe that among twenty cases of typhoid fever fifteen will be found which do not yield the regularity in the temperature curve to be expected from the statements made in textbooks, and in articles in medical journals. In some epidemics of typhoid fever the temperature is quite peculiar, and the diagnosis can sometimes be made from it alone, but such instances are rare. During the present autumn I have seen a large number of cases of typhoid fever, and of those there has been scarcely a single one which could be diagnosed according to the books; that is, from the diarrhoea, or from the roseola, or from the enlarged spleen, and such symptoms as are frequently found

associated in cases of typhoid fever. I have seen cases in which there were first and second relapses, and even in those the temperature of the primary attack did not exhibit the regular curve mentioned in the books. I have now and then seen a case in which the morning temperature has been higher than that of the evening, in addition to other irregularities which were present. I make mention of these facts, because I do not wish you to leave the college or the hospital with the feeling that you can always diagnose a case of typhoid fever simply by the temperature curve of the first week. You will be obliged to rely upon the bearing of all the symptoms in such cases. For there are a number of cases, even among adults, in which you can reach a diagnosis only by exclusion, being compelled to exclude meningitis, pneumonia, enteritis, etc.

SYMPTOMS OF TYPHOID FEVER IN CHILDREN.

Now let us see what these symptoms amount to in a child; and I will first speak of the mildest cases, which are by no means rare. You will see a child, perhaps one, two, three, four, five, six years of age, in whom simple changes are found by the attendants something like the following. It is noticed that in the afternoon the child becomes restless, perhaps is slightly flushed about the face; has a slight perspiration now and then, and from the appearance of the face it may be inferred that there is a little headache; perhaps that is all, except that the child wants to drink considerably in the afternoon. The next morning the baby seems to be all right, but in the afternoon the same symptoms return, and so the case goes on for a week. Finally, the parents become accustomed to such a trifling sickness, wait another week or two, and the child again begins to eat, and soon is completely well. Such cases are not very infrequent. Parents of a more careful type call a physician when the child has such symptoms, and when he takes the temperature it will be found in the afternoon as high as perhaps 102° or 103° F. If such a child is seen in the morning, when it is apparently perfectly well, the temperature instead of being 100° in the rectum, will perhaps be 100½° or 101° F. As you watch such a case from day to day it may be found that there is no special increase in the temperature of the body, and the child recovers, as a rule, within two or three weeks. Sometimes the disease pursues a more irregular course, and the child may be sick for four or six weeks.

In other cases you will find that the uneasiness and uncomfortable feeling is complicated by a little diarrhoea at some time in the progress of the disease. It may be called a teething diarrhoea, or a diarrhoea from a cold, or it may be explained in various ways by the mother or the neighbors. Occasionally there is a little pain over the abdomen, though rarely, however, and now and then there will be some slight tympanites, but as a rule there is none.

Occasionally you will find slight *enlargement of the spleen*, but more frequently there will not be found any increase in the area of percussion dulness over the spleen in a case of typhoid fever in a child, and for two reasons. In the first place, the spleen, in many cases, does not increase in size; and in the second place, it is difficult to find the spleen in a child. The chest is so short, the abdomen reaches high up, and the diaphragm does not make much of an excursion in the respiratory movements. Again, the intestines may crowd upward on the left side so that a tympanic percussion note will be obtained all the way beyond the line of the diaphragm. It is sometimes impossible to percuss the normal spleen in a

child, and in the same way it is difficult to find the spleen in many cases of typhoid fever occurring in children.

The *pulmonary symptoms*, which are almost invariably present in typhoid fever occurring in the adult, may be and frequently are absent in the child.

There may be *bronchial catarrh*, but it is not at all necessary.

Such children do not wish to lie in bed, and with such mild symptoms they will be found up and about the room, or perhaps lying on the lounge in the afternoon.

The fact is, that the principal anatomical lesions which are found in typhoid fever in the adult are in part or entirely absent in typhoid fever as it occurs in the child.

There may be a little swelling of the spleen, slight tympanites, there may be a few ulcers in Peyer's patches, there may be a few spots of roseola, a slight diarrhoea, or every one of these symptoms may be absent.

Therefore, in a number of cases you will be obliged to make very accurate observations regarding the morning and the evening temperature, and carefully study the entire child, in order that you may be able to say that there is positively no pneumonia, meningitis, enteritis, and no acute articular rheumatism. Then, as we do know that typhoid fever may pursue a slow course and extend over three, four, five, or six weeks, you may say that it is a case of typhoid fever.

I have stated that the disease is found in the young, and found very frequently. It is even found in the new-born; but such cases are rare exceptions. I believe that the entire number of cases of typhoid fever reported as occurring in the new-born is only four or five, and to those I can add one which I have never reported. It was the case of a child born of a primiparous woman in the upper part of this city, which at that time was not so populous as it is now. The house was in a bad condition, and the mother was very poorly at the time of her confinement. The baby was taken with a regular fever which could not be easily explained, but which in the beginning of the second week I made out to be typhoid fever. The baby died on the sixteenth day, and at post-mortem examination I found the spleen slightly increased in size, and there was slight ulceration of Peyer's patches, thus proving that the case was one of typhoid fever.

Why is it that the symptoms of typhoid fever are so slight in the child, when certainly children show less resistance to a great many other diseases than is offered to the same diseases by adults? I believe the chief cause must be looked for in the fact that the principal anatomical lesion in typhoid fever cannot be developed to such an extent in the child as in the adult. The glands in the intestinal tract and throughout the entire body are but slightly developed in infants. Peyer's patches are but small and few in number, and sometimes you will find no more than six or seven altogether. Their physiological function appears to be very limited, and thus it is that the pathological changes taking place in them are but slight. For pathological development is, as a rule, only an overstrained development of physiological function, and therefore I say that as Peyer's patches are but slightly developed anatomically and physiologically, they give rise to but slight inflammation, ulceration, etc., in the child.

There is another theory which has been advanced by one of the best men among us, viz., by Gerhard. His opinion is the following: That the poison of typhoid fever is introduced into the body through the respiratory organs or through the diges-

tive organs; that it is introduced through the respiratory organs in many cases, but in more cases through the digestive organs, especially by means of drinking-water. Now, babies and little children drink but little water, and that little has generally been subjected to boiling, etc., and is in such condition that the infecting material is destroyed. Thus infection in infants is less serious than in adults, and in his opinion this is the reason why typhoid fever is so mild in children.

(To be continued.)

Original Communications.

THREE CASES OF REMOVAL OF THE OS CALCIS.

BY CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

CASE I.—Fanny M., aged 3 years, was admitted into St. Mary's Hospital, July 26, 1874, with a large sinus, from which there was a considerable discharge of pus, situated on the dorsal surface of right foot over the upper border of the cuboid bone. There was also disease of the first metacarpal bone of left hand. The child was unhealthy-looking, having that look so characteristic of the so-called strumous diathesis.

September 24.—Patient was etherized, and an incision made on the dorsal aspect of the foot, so as to pass through the sinus in that situation, and several small pieces of loose bone were removed. It was then found that the disease was confined to the os calcis, and a considerable portion of that bone was removed through the opening made. The portion of the bone left seemed hard, and was supposed to be healthy. The wound was stuffed with lint, and the foot placed on a rectangular splint. After some time the incision closed, except a sinus which continued to discharge pus, and through which diseased bone could still be felt.

In January, 1875, some more diseased bone was removed, the old incision being reopened.

In April the foot was no better than at time of admission. Patient was again put under ether, and an incision made down to the bone on the plantar surface of the foot from a point corresponding to the insertion of the tendo Achillis forward, so as to give sufficient room for the removal of the whole os calcis. This was easily done. The cavity thus left was stuffed with lint, and the foot placed on a splint. The wound was kept well filled with lint, so that it should heal from the bottom. The wound gradually closed, and patient regained good use of her foot, so that she walked without any limp. She was seen more than a year after she left the hospital, and the foot had continued in good condition. There was some flattening of the plantar arch, and some depression below the external malleolus. Careful examination failed to detect any new formation of bone.

CASE II.—Michael D., aged 3½ years, was admitted into St. Mary's Hospital January 9, 1879, with disease of the os calcis of right foot of some duration. The bone has been gouged twice previous to his admission into St. Mary's. He is a healthy-looking boy. Nothing can be obtained as to the history of his trouble. His parents are healthy. There is a sinus on the external aspect of right foot over the anterior portion

of the os calcis, through which diseased bone can be felt.

February 1st.—He was etherized, and the old incision on the external aspect of the foot reopened, and the tissues separated from the lateral surface of the bone, when a cloaca was found leading into a cavity in the os calcis, in which there was a loose piece of bone about the size of a small filbert. The walls of this cavity were smooth and hard, evidently composed of sclerosed bone. The wound was washed out with a solution of chloride of zinc, the cavity stuffed with lint, and the foot placed on a splint. Hemorrhage was controlled by an Esmarch bandage. After discharging profusely for some time the incision closed, the sinus assuming the same appearance that it had before the operation.

May 3d.—Patient was again placed under ether, an Esmarch bandage applied, and, assisted by Dr. Watts, the os calcis was excised in the following manner: An incision was made beginning at a point corresponding with the inner edge of the tendo Achillis, and on a level with the upper border of the tuberosity, outward and forward on to the external aspect of the foot to a point midway between the external malleolus and the proximal end of the fifth metatarsal bone, the incision going down to the bone, and the periosteum easily detached. The bone was removed in pieces, and the periosteum was left almost intact. The cavity was filled with soft granular tissue. The walls were sclerosed, and what remained of the cancellous tissue was diseased. After removing the bandage there was a very free hemorrhage from the inner surface of the periosteum. The external portion of the incision was brought together with silver sutures, leaving an opening behind for drainage. The cavity was washed out with a solution of the chloride of zinc, then stuffed with lint and bandaged, and the foot and leg placed on a posterior splint.

May 5th.—Lint removed and drainage-tube inserted.

May 10th.—Incision all healed, except where the drainage-tube was inserted; discharge moderate.

May 29th.—There are now only two small sinuses; one behind where the drainage-tube had been, and one in the location of the old sinus.

June 10th.—Patient up and about.

September 30th.—There is now a small sinus that discharges a little serous fluid. No exposed bone can be detected. He can walk and run about, makes no complaint of any pain, has good use of his foot, but uses his knee awkwardly. He went out of the hospital to-day. I do not think that there has been any regeneration of bone.

CASE III.—Mamie S., aged 7 years, was admitted into St. Mary's Hospital January 10, 1879, with disease of the os calcis of right foot. Her father died of consumption, her mother is healthy, but her sister and brother look pale and unhealthy.

Three months ago she began to complain of pain in the heel of right foot, which soon began to swell. Five weeks ago the abscess opened on the back of the heel, and has continued to discharge ever since. At date of admission there was a sinus discharging a small quantity of pus situated on the posterior part of the heel, and through which a probe passed; detected diseased bone.

Patient was a pale, unhealthy-looking child.

March 15th.—Patient was to-day etherized, and, assisted by Dr. Watts, the os calcis was removed in the same manner as in the last case. The bone was found to be diseased throughout. The periosteum was easily separated from the bone. Hemorrhage was controlled by an Esmarch bandage. On removing

this there was but little hemorrhage, and only one small vessel had to be ligated. The cavity was washed out with a solution of chloride of zinc. The lateral portion of the incision was brought together with silver sutures, leaving the posterior portion of the wound open for drainage; through this a drainage-tube was passed, and the wound covered with a few layers of carbolized gauze, and over this cotton and a bandage. Limb put into a splint.

March 25th.—Since operation patient has done well. For a day or so after the operation temperature was elevated, but it is now perfectly normal. There is considerable discharge from the cavity of the wound, and there has been some swelling of the foot, but she has suffered no pain.

April 3d.—The line of incision has all closed, except where the drainage-tube is inserted.

May 8d.—Drainage-tube removed, cavity almost filled up, not much discharge. She can bear her weight on the foot, and is walking about.

June 10th.—There is some slight watery discharge from the sinus in the back of the heel. Patient can walk well. Parent removed her to-day from the hospital.

Cases of disease of the os calcis are mentioned by Mr. Hancock where, after gouging or the removal of sequestra, good results have been obtained. Yet, in two of the cases mentioned above, gouging entirely failed to eradicate the disease, and the patients did well only after total resection of the bone. Case No. II., where there was a sequestrum contained in a smooth cavity in the os calcis, would seem to have been a case where the removal of the dead bone should have been followed by a cure; but the sclerosed condition of the surrounding bone and its consequent low state of nutrition, on account of the partial cutting off of its arterial supply, may have been the cause of the failure to reproduce bone, and a no small element in the persistence of the disease. Gouging, or partial excisions of this bone for disease, is looked upon, by those who have had much experience in the surgery of the foot, as not apt to be followed by good results.

Most writers on exsection of the os calcis advocate two incisions, one of which is at right angles to the lateral, and encroaches more or less on the plantar surface of the foot. In Case No. I. the bone was easily removed through an incision confined entirely to this surface; and, although plenty of room was obtained, yet the resulting cicatrix caused a deep depression on the plantar surface which I think a disadvantage. The mode of removal of the bone in the last two cases was that advocated by Mr. Hancock and Mr. Holmes, except that the second incision at right angles to the first on to the plantar surface was omitted, and yet plenty of room was obtained. In all the cases the tendo Achillis became blended with the cicatricial tissue, and thus gained a firm point of insertion. There was some flattening of the heel in all of these cases, but this did not interfere with the usefulness of the foot.

THE DOCTORS IN MEMPHIS.—In 1878 all the homœopaths, four in number, ran away when the plague came. Of the forty-six regulars, ten followed in their wake; of the thirty-six who remained, twenty-eight were attacked with the fever and fourteen died. Eight had already had the disease and were not attacked at all, though on duty day and night. The facts corroborate the belief that one attack gives immunity from a second.

SLOW UNION OF FRACTURE OF LEG.

By PROF. GEORGE E. POST, M.D.,

BEIRUT, SYRIA.

On page 17, No. 452 of the *MEDICAL RECORD*, is the report of a case of non-union of fracture of the tibia of twelve years' standing. Reading this case prompts me to report a case of slow union.

John Dwyer, a seaman in the British navy, 24 years old, fell from a horse while drunk, and broke both bones of his right leg at its middle. Two years previous a spar had fallen on the tibia of the same leg, and he appears to have had periostitis without suppuration. He remained for two months in hospital, but was at last discharged cured.

The fracture being simple, was at once put up in a plaster splint, and left for five weeks. On taking it down there was almost as much mobility as at the time of the fracture, and very little callus about the broken ends of the bone. I immediately reset the leg in a firm plaster dressing, which I carried half up the thigh. In ten days from the time of the application of the second splint I was obliged to remove it on account of the intolerable itching, which led the patient to believe that it was infested by innumerable bedbugs. None were found; but the skin of the leg, from the knee to the ankle, was pierced with small punched-out ulcers, giving the limb the aspect of a stick of timber bored by teredos. This made it quite out of the question to attempt the restoration of the plaster apparatus. I applied Cline's splints to the internal and external aspects of the leg, and dressed the limb with zinc ointment. By removing the splints twice daily, and very carefully avoiding all motion of the fragments, the leg was kept tolerably clean. The ulcers, however, did not heal entirely until three months later, and in the meantime the fracture slowly consolidated, with very little callus around the broken ends. It was six months from the time of the injury before he was able to begin to walk. Although there is no angular displacement, and the fracture was quite transverse, and no overriding of the fragments occurred, there is a shortening of half an inch, which I can only explain by the absorption of a portion of the free extremities of the fragments before and during the process of union, such as takes place in the neck of the thigh bone and the humerus in some cases.

The patient finally obtained a useful limb, and the halt in his gait has been corrected by the use of a high-heeled shoe. He expects to return to active duty in the navy.

A CASE OF DISLOCATION OF THE PATELLA UPON ITS AXIS.

VERTICAL DISLOCATION AND A CASE OF DISLOCATION OF THE THIGH DOWNWARD AND FORWARD INTO THE FORAMEN THYROIDÆUM, IN A CHILD THREE YEARS AND ONE MONTH.

By ERSKINE MASON, M.D.

THESE two rare cases, as to character and age of one of the patients, having lately fallen under my care, I deem them worthy of being placed upon record, as so few of a similar nature have been reported.

DISLOCATION OF THE RIGHT PATELLA UPON ITS AXIS.

While making my visit at the Roosevelt Hospital on the afternoon of Sept. 4, 1879, a strong muscular man, aged 37 years, blacksmith by occupation, was brought

into the ward, who had met with this accident about an hour before admission. While shoeing a horse (the hind leg of the animal being between his knees) the horse became restive, and, almost falling, pressed his leg heavily upon the under edge of the right patella, thus producing the dislocation. Upon entering the hospital he complained of great pain in the knee, especially when the bone was touched. The limb was extended, and the patella, with its anterior surface outward and in a perfectly vertical position, was found firmly locked in the inter-condyloid fossa. The tendon of the quadriceps was twisted upon itself, prominent, and felt like the ligamentum patella, which was also raised and very tense.

All examination being exceedingly painful, he was at once placed under ether, when I thoroughly examined the parts and proceeded to the reduction of the bone. First I flexed, and then, while extending the leg, made pressure upon the patella; this failed. Second attempt, I flexed the leg rapidly, and then strongly extended the leg; this seemed to unlock the bone a little from its fastening, but lateral pressure failed to reduce it; then, while extending the limb, I firmly crowded down the rectus, and with the assistance of the other hand and that of Dr. Watts, pressure being made against the bone, it readily passed into place. The chief aid in reduction, in my opinion, was the crowding down of the rectus. The after-treatment consisted of the application of a posterior splint and an ice-bag on the limb for twenty-four hours. No ill-consequences followed, and he left the hospital on the twelfth day with perfect use of the joint.

DISLOCATION OF THE RIGHT THIGH DOWNWARD AND FORWARD INTO THE FORAMEN THYROIDÆUM, IN A BOY AGED THREE YEARS AND ONE MONTH.

This patient I saw in consultation with Dr. Geo. H. Basly. The manner in which this injury occurred could not be satisfactorily accounted for. All the parents could state was, that while in the country one afternoon he was playing in a room with some trunks and boxes, and, as the child states, he fell. He complained of no pain, and the only thing that attracted the attention of the parents was the manner in which the child stood and walked. A glance at the child in the erect position revealed at once the character of the trouble which the doctor told me I was to see. The limb was abducted, thigh slightly flexed, and the foot turned a little outward, while there was a depression where the prominence of the trochanter should be seen, and the head of the bone was felt in its abnormal position. By measurement the limb was nearly an inch longer than the other. The child complained of no pain except when the head of the bone was pressed upon. He could run about the room and go up and down stairs without much difficulty, and seemed rather amused at the position of his limb and the peculiar gait when walking.

On September 17, 1879, the fourth day of the injury, ether having been given (up to the point only of primary anæsthesia), I flexed the thigh at a right angle to the pelvis, slightly abducted and gently rotated inward; adducted, and the head of the bone passed at once into the acetabulum. The whole operation did not consume more than a minute. These manipulations are those laid down by Bigelow in his work on the Hip; and in this connection I might say that in two other cases of dislocation upon the dorsum in adults I have effected ready reduction by the method he advocates; while in one case of dislocation upon the pubes, reported in the *RECORD*, April 8, 1876, various manipulations were resorted to before reduction

was accomplished. After a somewhat extended research through the literature of dislocations of the thigh, this is the youngest person with dislocation into the thyroid foramen, with the exception of the one reported, of an infant six months old, by Powdrell, in the *Lancet* for May 16, 1879, that I have found recorded.

Reports of Hospitals.

NEW YORK HOSPITAL.

SWELLING OF COSTO-STERNAL JOINTS—EFFECT OF SALICYLATE OF SODA.

(Reported by T. ROLAND CHAMBERS, M.D., late House-Physician.)

HELEN SIMPSON, *æt.* 55. History of intemperance and rheumatism. Last rheumatic attack eight years ago. Cough, with frothy sputa, for nine months. Two months ago this cough became very painful. At that time tumors appeared at edge of sternum, which have steadily increased in size and sensitiveness. During the past week there has been persistent nausea and vomiting, and no sleep for three days.

On admission, patient was much emaciated. Features of face show that she has been, and is suffering intense agony. Every respiratory effort is painful, and motion of the right knee or either ankle elicits a cry. Temperature, 103.5° F.; respiration, 35; pulse, 125. On the right side, at the articulation of second costal cartilage with sternum, is a prominent circumscribed swelling, tense and fluctuating, about the size of a hickory-nut. It cripitates with each respiration. The cartilage is drawn in with inspiration, and passes out beyond sternum with expiration. The same kind of tumor and similar symptoms exist at third and fourth costo-sternal articulations, same side. The aggravation of symptoms during the past week is accounted for by the pneumonia which undoubtedly exists in both upper lobes of right lung. There are heart murmurs.

The points of interest are: the location of the swellings; the fact that two ribs are, as it were, floating in a fluid, and are drawn in with inspiration, and pushed out with expiration; that after four days' administration of salicylate of soda, sixty centigrammes every two hours at first, and less frequently later, the swellings almost entirely disappeared, as well as the luxation of the cartilages. The patient died, however, and the autopsy revealed gray hepatization of both upper lobes, right lung; atheroma in heart and vessels; general parenchymatous and interstitial changes in the various organs. The opposed surfaces of joints, where the swellings had been, were found to be the seat of calcareous degeneration.

The right kidney was found with its long axis lying transversely.

THREE CASES OF SUSPECTED ANEURISM.

August Müller, *æt.* 46, sailor; died April 6th. Complained of pain, cough, dyspnoea, anorexia, aphonia, loss of health and strength. Examination reveals slight paralysis of left vocal cord, visible pulsation of arteries in neck, systolic bruit distinct all over chest; and the finger, pushed in over the episternal notch, felt the aneurism itself. The left radial is very much smaller than the opposite pulse, and the sphygmographic trace made the descent of the left to be straight, while the right was a broken line.

The diagnosis here seemed plain—a large aneurism of the arch sufficient to interfere with the left recurrent nerve. The man died suddenly, and autopsy revealed a very “moderate” dilatation of the upper part of the arch; but the opening of the left subclavian artery was only about one-tenth the diameter of the right. The interior surface of the aorta was very rough (atheromatous).

William Proctor, *æt.* 32, sailor; died June 2d. Complained of pain, cough, dyspnoea, and anorexia. Examination revealed a loud systolic bruit all over the chest and down the spine. In addition, a double murmur at apex. This man's chest had considerable dullness, which was not marked in the case of Müller. The right pulse here had a single break in the descent, while the left had two breaks; both had same length of ascent according to the sphygmograph. To the finger, the right seemed to be slightly smaller than the left pulse.

Dr. McLane's diagnosis was hypertrophy and dilatation of heart and *no* aneurism; but a number of others, after careful examination, thought there was a small aneurism, possibly of the first part of the arch. Autopsy showed Dr. McLane's diagnosis to be correct. The valves were atheromatous, and if there was any dilatation of the aorta, it was so slight as not to be called abnormal.

Thomas Farrell, *æt.* 35, huckster; died September 24th. This man's figure was like an inverted L. The cervical spine was at right angles with the lumbar. The house-physician admitted and discharged the patient as a case of caries of the spine. There was double kyphosis at seventh cervical and ninth dorsal regions. The man's condition was such that an extensive examination was impossible. He had crowing inspiration and a peculiar high-pitched tone of voice, as if there was pressure on the trachea somewhere. He had cough with tenacious sputa, which at times, and especially latterly, contained blood and small, dark blood-clots. The physical signs pertaining to the circulatory apparatus were masked by the peculiar shape of the chest. The abdominal aorta could not be gotten at by the stethoscope. It was difficult to reconcile his frequent dyspnoeas (controlled by a hypodermic injection of morphia) with such a steadily progressing disease as caries. There was nothing noted in the radial pulses. Finally, the man died in an attack of dyspnoea, and blood came from the mouth, then thought to be from a bitten tongue; but post-mortem examination shed a light on everything except the caries of the spine. The family objected to having his unsymmetrical curve destroyed, and we were deprived its thorough study, but they could not prevent our seeing a large clot protruding through an opening in the aorta, at a point just below the opening of the left subclavian artery. The opening was large enough to admit a hickory-nut, and it communicated with the sac of an aneurism large enough to hold two walnuts. It contained a black clot commencing to organize toward its deeper part, where it lay upon, and had eroded three rings of the trachea, and had opened into its calibre in two places between the rings. The mucous membrane for a considerable area was much congested, and the rings were calcareous.

DR. OLIVER WENDELL HOLMES has recently passed his seventieth birthday; Dr. Willard Parker recently began his eightieth year. Both are still vigorous men, and Dr. Holmes is expected soon to publish another volume.

PENNSYLVANIA HOSPITAL, PHILADELPHIA.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

(Prepared for THE MEDICAL RECORD.)

PATULOUS AORTIC VALVE IN CHRONIC BRIGHT'S DISEASE.

The patient was found lying unconscious in the street. When brought into the hospital his pupils were contracted and his breathing stertorous. The radial arteries were very tortuous. One-sixth of the bulk of the urine was found to consist of albumen. The fæces were passed involuntarily.

Immediately upon admission the man was given grt. ij. of croton oil in a teaspoonful of olive oil, and a dose of the following prescription:

R. Spts. chloroformi (B. P.).....gtt. xxx.
Acid. benzoici.....gr. vj.
Potas. bicarb.....gr. xxx. M.
S. Drops ten every two hours in water.

For sustenance the patient took three pints of milk and one pint of beef-tea, together with f3 j. of alcohol, the milk and beef-tea being given in small quantities at short intervals.

Atropia was injected into the eyeball, but did not dilate the pupil sufficiently to enable the visiting physician to examine the eye-ground with the ophthalmoscope.

When examined carefully on the day after admission, the right side of the patient's mouth was found to be paralyzed. So, too, were the right arm and right leg—the leg less so than the arm. The man was still dull and inattentive. His respirations were forty-four to the minute, and his pulse 116. The radial arteries wound along like worms, and pulsated visibly from the elbows to the wrists. Another curious fact in connection with the case was the presence of rounded, hard tumors on the back of his elbows and over his phalangeo-metacarpal joints. One of these tumors was opened, and a very thick, creamy matter escaped, which yielded crystals of tyrosin under the microscope. It was impossible at that time to detect any murmur of aortic regurgitation.

In endeavoring to reach a correct diagnosis in the case, the visiting physician was led at first to regard the case as one of opium-poisoning, owing to the marked contraction of the pupils; but this view of the case was invalidated by the facts of paralysis and stertorous breathing. It was finally determined that the case was one of chronic Bright's disease, and the opinion unhesitatingly advanced that further examination would reveal the presence of tube-casts, and that when the more violent symptoms had subsided a regurgitant cardiac murmur would be heard. Mention was made of the statement advanced by Walsh, of London, viz., that the tortuousness of the arteries present in the case is only present in patulous aortic orifice and coarctation of the aorta.

Subsequent events proved this diagnosis to be the correct one.

The patient's comatose condition, dependent upon the uræmic poisoning, was found to yield very markedly to the following prescription, recommended by Dr. George Johnson, of London, viz.:

R. Scammonii resina.....gr. v.
Potassii bitart.....gr. xx.
Zingiberis.....gr. viij. M.
S. To be administered when needed.

OPHTHALMIA NEONATORUM.

A solution of nitrate of silver (three-quarters of a grain to the ounce) is injected under the lids twice a day.

For the lids themselves the following is usually employed:

R. Sodæ boratis.....gr. xij.
Zinci sulphatis.....gr. j.
Aquæ camphoræ.....f3 j.
Aquæ destillatæ.....f3 j.

M.

S. To be applied to the lids two or three times a day.

A plan of treatment highly recommended by Mr. Dickson, of London, viz., the injection between the lids every half-hour of a solution of alum (from five to eight grains to the ounce), the strength of the solution to be gradually diminished as the case gets better, has also been tried with very gratifying results.

THREE INTERESTING CASES OF SPINAL DISEASE.

CASE I.—The patient, a sailor, was brought into the hospital with a history of a fall of thirty feet from the rigging of his ship while at sea. He fell partly on his head and partly on his back. When picked up he was unconscious, and remained so for fifteen minutes. Upon regaining consciousness he found that his right arm and leg were entirely paralyzed, and the left arm almost entirely so. The patient received no treatment whatever while at sea.

Since admission the patient had been carefully examined and found to be free from any disease of his heart, lungs, liver, or kidneys. The ophthalmoscope revealed a slight optic neuritis, but not enough to indicate any serious disease of the brain. When he walked he carried his head somewhat forward. The effort to straighten the head gave the patient pain. At the point of junction of the cervical and dorsal spine some thickening and induration were found. The right arm had not entirely recovered its power. He was unable either to extend or close the fingers of that hand. There was some atrophy of the muscles of that hand. The circulation of the same limb was also found to be very defective. The left hand and arm exhibited the same conditions, but to a lesser degree than the right arm. The man's walk was peculiar. The right leg was stiff and trembled when he walked. Upon stripping the limb the feet were found to be abnormally extended. Attempts to bring the foot up to a right angle were attended with great trembling of the member and marked tension of the tendo Achillis. The tendon reflex of the patella of both legs was most marked. There was no decided impairment of the sensation of either touch or pain in the feet. Contraction of the muscles under the faradic current was slightly impaired in both legs and arms. Now and then trembling could be produced by pressure upon the lower part of the spinal column.

In debating the case, two difficulties were encountered. 1st. In connection with the nature of the original injury; and second, as regarded the present nature of the disease. Concerning the first point, concussion of the spine seemed hardly possible, since it could not account for the paralysis of the muscles of three extremities. It seemed more probably to have been a case of apoplexy of the cord. It was concluded, however, that the effusion of blood could not have been a large one, since there was no paralysis of the left leg, no urinary difficulty, and no pronounced tendency to the formation of bed-sores.

Concerning the second point to be decided, it was thought that the symptoms then present pointed conclusively to an involvement of the lateral columns. This opinion was strengthened by the presence of spastic muscular contractions. The absence of anæsthesia proved that the posterior columns could not be seriously affected, and the absence of analgesia seemed to show the same to be true of the gray matter. It was thought that simple concussion of the spine was sufficient to produce inflammation of the lateral columns.

As soon as the patient entered the wards a blister was applied to the seat of induration in the back, and bromide of potassium administered internally. When it was seen that inflammation of the cord existed, one-sixteenth of a grain of the bichloride of mercury was ordered four times a day. Later he was put upon gr. x. of potassium iodide thrice daily, which dose was subsequently doubled. It was remarked, in connection with the early history of the case, that ergot and belladonna would have been the proper remedies to employ immediately upon the reception of the original injury.

For the future occasional blisters were ordered and rest was enjoined. Strychnia and electricity were regarded as injurious.

CASE II.—A farmer, with a good family history, who had spent a day in very hard work and during the following night had been much exposed to cold and wet. This imprudence, which took place eleven months before his admission to the hospital, was followed by loss of power in the lower extremities and complete paralysis of the bladder.

For two or three months after this period the patient had shooting pains in his legs and was much troubled with nocturnal delirium.

The man was carefully examined after his admission, and found to be suffering from marked paraplegia without involvement of the rectum or bladder. The strong faradic current elicited no response whatever in either leg, except from the flexors of one of the big toes; using the continued current the same results were observed.

The case was regarded as a typical one of acute spinal paralysis—a rare form of disease in the adult—in which the lesion was in the anterior horns of the spinal cord. The location of the lesion was thought to account for the entire loss of electro-muscular contractility, while sensation was so little impaired. It was also thought to account for the absence of rectal and vesical difficulties and of bed-sores.

CASE III.—A shoemaker, who stated that his troubles dated back to an attack of rheumatism in his legs. This rheumatic attack lasted about three weeks. Pains in the back and legs were associated with the rheumatism.

When admitted to the hospital the man complained greatly of pains in the limbs and back, and of loss of power in the lower extremities. He still walked with difficulty and pain, but the local tenderness and discoloration had gone. It was difficult to decide whether the pains complained of were due to the rheumatism in the extremities. It was concluded that they were not. The man improved very rapidly under the use of the iodide of potassium and ergot, and was discharged entirely cured, as it was supposed. Ten days afterward, however, he was again admitted. Upon questioning him closely it was discovered that he had spent all the time since his discharge in walking about the city in search of employment.

After his return to the wards he began to lose power in his legs steadily. The pains in his back and legs returned, and he spoke of a feeling of great con-

striction around his waist. Still later the legs began to atrophy, and still the loss of power remained. The electro-muscular contractility was very much diminished, while the sensibility seemed to be slightly deficient in both of the lower limbs. The capillary circulation was very defective, the blood circulating very irregularly in the superficial tissues. Reflex sensibility still remained intact. The muscular sensibility had gradually increased.

It was concluded very early in the progress of this case that it was one of rheumatic paralysis of the cord, or rheumatic spinal myelitis.

Anatomically speaking, it was pointed out that the lesions in Cases II. and III. were the same, both being located in the anterior horns, but in Case II. there was no rheumatism, and the spinal paralysis came on at once; while in Case III. the rheumatic origin was plain, and the spinal complications came on at a later period. The treatment of Case III. was by gr. xv. of the iodide of potassium thrice daily, with a little iron and local friction.

In the discussion of Cases II. and III. some very interesting points were brought out. Particular attention was directed to the rapid atrophy of the muscles of the lower extremities in both of the cases. This atrophy was emphasized as being the most typical and constant symptom of this class of affections, the rapidity with which this atrophy progresses being in proportion to the acuteness and persistency of the attack.

Another fact, to which particular attention was directed, was that this atrophy, as a general rule, is not permanent. In cases where recovery has been more or less complete, the limbs are found to have regained, to a greater or less degree, their normal shape and power, the completeness of the return of the limb to its normal shape being dependent, of course, upon the completeness of the patient's convalescence. Complete restoration to power and health was regarded as rare. It was argued that the real extent of the damage done depended upon the number of trophic cells which had been destroyed. If enough of them remained intact, when the morbid process had ceased, to minister sufficiently to the supply and nourishment of the atrophied muscles, it was easy to restore them for a time lost functions by means of proper nerve-food, friction and electricity in the shape of galvanism, and in the later stages by the hypodermic use of strychnia.

The question arising as to whether the tape-measure was the only means of judging definitely of the condition of the affected muscles, it was pointed out that when it was found upon trial that the faradic current when applied to the affected muscles began to give better results, and when the muscles began to respond and contract, though feebly, it might be accepted as a sure sign of returning health, for it proved conclusively that the muscles were becoming more active, and that the paralysis had reached its height.

It was thought that the same conclusion could not be drawn from the use of the continuous current, the muscles responding to this current so soon that it could not be regarded as any gauge at all.

Attention was called to the facts of the entire absence of rectal and vesical paralysis and of bed-sores in Cases II. and III.

In one point it was shown that these two cases had not been typical ones of their kind, viz.: in so far as the reflex nervous functions had not been in the least impaired in either case.

The treatment was limned out as having consisted at first of local bloodletting in the neighborhood of

the spine, occasional purging, and large and continuous doses of ergot. This at first; later the indications were met by large doses of the iodide of potassium, and by the application of systematic friction to the legs. Later still, it was thought that small doses of strychnia should be administered hypodermically, and when muscular motion returned, that the faradic current should be employed.

ANTEFLEXION OF THE UTERUS.

The patient was a servant-girl, twenty-seven years of age, with a history of menstrual irregularities extending through a period of seven years. Accompanying the flow there had been occasional suprapubic pain. Six months before her admission to the hospital this pain had become constant and she had been compelled to give up all work. She was obliged to pass her water twenty or thirty times a day. The urine was examined, and found to be entirely normal in all respects.

Vaginal examination showed the uterus to be a little lower than natural; the finger encountering the fundus in the anterior cul-de-sac. Together with this ante flexion there was some catarrh of the bladder, while the woman was anæmic and hysterical, and suffered greatly from constipation.

It was concluded that the first thing to do was to build up the woman's general health. Rest in bed was enjoined; thrice a day she took gr. iv. of the ammonio-citrate of iron with gentian, and the following prescription was employed, viz.:

B. Magnesii sulphat.	3 vj.
Acid. sulph. dil.	3 ij.
Ferri sulph.	gr. xij.
Quinise sulph.	gr. xij.
Syrupæ zingiberis.	f 3 j.
Aquæ q. s. ad.	f 3 vj.

M.

S. A tablespoonful in ice-water thrice daily.

To cure the ante flexion, instead of introducing a pessary, it was determined to persuade the woman to teach her bladder to hold gradually more and more urine. It was reasoned that when the bladder could hold twelve ounces, the ante flexion would be largely reduced.

Progress of Medical Science.

A NEW METHOD OF PREVENTING STRANGURY FROM THE USE OF CANTHARIDES.—M. Guyot-Dannecy, of Bordeaux, recommends a mixture of cantharides with carbonate or bicarbonate of soda for vesicating plasters. He uses equal parts of soda and powdered cantharides, strews the mixture on adhesive plaster, presses on it with the hand until the powder adheres to the plaster, and then covers it with oiled paper. Vesication is produced as rapidly and as certainly as when cantharides alone is used, and the experience at Bordeaux seems to show that the soda used in this manner is a much better preventive against the bad effects of the Spanish fly on the bladder, than is camphor.—*Lyon Medical and L'Année Médicale*, June, 1879.

RENAL CALCULUS FORMED OF INDIGO.—Dr. Bloxam found, at an autopsy on a woman of middle age, a calculus in the right kidney. It was of a dark-brown color, but covered in parts by a thick, granular, bluish-black coating. Drawn over paper it left a bluish-black mark. Chemical and microscopical ex-

amination showed it to be composed of blood-clot mixed with a little crystallized phosphate of lime, and a large quantity of indigo disposed in the shape of a thick coating. No explanation is given of the significance of the presence of the indigo.—*Revue Médicale*, July 26, 1879.

ON THE FUNCTIONS OF THE TRUE AND ACCESSORY NUCLEI OF THE HYPOGLOSSAL.—In his valuable researches on the bulbar region, M. Duval discovered in addition to the true nucleus of the hypoglossal nerve, which is found in the floor of the fourth ventricle, within and in advance of the nuclei of the mixed nerves, an accessory nucleus situated in a more central portion of the bulb; here with other nuclei, like it, derived from the head of the anterior cornu, it forms a small gray mass known, since the labors of Stilling, Kölliker, etc., as the antero-lateral nucleus. These two nuclei, the true and accessory, are bound together by fibres.

M. Duval has recently had occasion to examine a subject who had suffered from glosso-pharyngeal paralysis, and found that the lesions were not the same in the true and accessory nuclei; in the former no cells remained, in the latter there were still some cells which retained their original form and volume. On investigating the symptoms observed during life, he found that the patient, although unable to pronounce a single word, still retained some use of the tongue: he could suck an orange, and give various exaggerated movements to the organ. M. Duval thinks that it may be inferred from this, that the true nucleus presides over phonation and the accessory nucleus over deglutition.—*La Tribune Médicale*, July 27, 1879.

THE STRUCTURE OF THE BROAD LIGAMENT.—From a large number of pathological and anatomical observations, M. Guérin concludes that phlegmonous inflammation of the broad ligament is, and must be, a rare affection. After pelvic cellulitis, indeed, pus may be found in the broad ligament, but the quantity is small, and this is evidently not the starting-point of the disease. The formation of the ligament is not such as would favor phlegmonous inflammation, it being composed almost entirely of aponeurotic layers; but little cellular tissue is found here, and what is present is dense and firm. All attempts to inject melted tallow or colored water into the substance of the ligament have failed, except when the liquid was simply forced into the subperitoneal tissue; then, indeed, it might be made to appear at the anterior abdominal wall. Most of the symptoms attributed to phlegmonous inflammation of this ligament belong to another affection, which he calls *adeno-phlegmon juxta-pubien*, and which has its origin in the neck of the uterus; a lymphangitis first appears, then an inflammation of the lymphatic glands near the horizontal ramus of the pubis, in the neighborhood of the obturator foramen, and of the crural ring.—*La France Médicale*, July 16, 1879.

THE TRANSMISSION OF THORACIC SOUNDS TO THE ABDOMEN IN CASES OF ASCITES.—At a recent meeting of the *Académie de Médecine*, Dr. Vidal read a paper on this subject, drawing the following conclusions:

1. The transmission to the abdomen of thoracic murmurs may assist in the diagnosis of beginning ascites.

2. The diminution in the intensity of the transmission of heart sounds, while the respiratory murmurs continue to be distinctly heard in the abdomen, indicates the commencement of hydropericardium.

3. The persistence of the transmitted heart-sounds, while the respiratory sounds are diminished or lost, would indicate the presence of pleuritic effusion.

It would seem from this that the transmission is probably effected by means both of the intestine and of the liquid under certain conditions, with which we are not fully acquainted, but which are similar to those described by MM. De Mussey, Raynaud, and Baccelli, in their works on the transmission of sounds in ægophony, and in certain kinds of pleurisy. The vibrations are transmitted over relatively considerable distances through the gas contained in the intestines, to the liquid, and thence to the ear of the observer.—*Gazette Médicale*, August 9, 1879.

TREATMENT OF CARDIAC DYSPNOEA.—The medicine which has proved most valuable in the experience of Prof. G. Sée, in cases of cardiac dyspnoea, is iodide of potassium. This is especially useful when the dyspnoea is due to a lesion of the heart tissue itself (dilatation or degeneration of the muscle); but it is also of value in valvular lesions. The iodide acts by augmenting, or rather liquefying the bronchial secretions, by which the tubes are rendered more permeable to the air. Iodism may be prevented by associating opium with the salt. Digitalis may be added to the mixture with great advantage, the one relieving the heart, the other the lung.—*Le Concours Médicale*.

POISONOUS PAPER COLLARS.—It has long been a prevalent idea that paper collars contained poisonous ingredients, and were a somewhat dangerous article of toilet. A writer in *The Lancet* has investigated the matter with the following result: he finds that the glazing is done with sulphate of baryta, which is present in large quantity. This salt is very insoluble, and therefore in itself innocuous. It may, however, be combined with other salts which will make it soluble, in which case it would cause great irritation. No arsenic was found at all.

A CASE OF HYPERPYREXIAL TEMPERATURE.—Dr. Graham Steell, of the Manchester Royal Infirmary, reports in *The Lancet* an interesting case of extremely high temperature. The patient was a woman, aged twenty, who first came under treatment for a slight attack of erysipelas. She recovered from this, and, about two months later, began to suffer from retention of urine and cystitis. While treating her for this, she was discovered to have a prolapsed ovary, which occasionally caused her much pain. After being somewhat relieved of these troubles, it was noticed that her temperature became variable, and for the next three months it oscillated between normal and 108°, 112°, and once 113°. She suffered from rigors, during and after which the temperature rose. Its course was somewhat like that of pyæmia, and the fever generally ended in a profuse perspiration. No abscess or evidence of any organic lesion could be found. The patient, until the last part of the illness, did not show any signs of being severely sick. The rises in temperature were of short duration.

The patient finally began to show cerebral and spinal symptoms, and the case looked very much like one of tetanus. Recovery, however, at length took place.

The case, though not completely reported, adds to the evidence in favor of the existence of very high temperatures in the human body.

INFLUENCE OF SUGAR INJECTED INTO THE VEINS ON THE RENAL SECRETION.—In two papers read before the *Académie des Sciences*, in July, MM. Richet and Moutard-Martin reported the results of a series of ex-

periments with the intra-venous injection of sugar. They found that these injections produced almost instantaneously very marked polyuria. The experiments were performed on dogs; a canula was introduced into each ureter of the animal, and the quantitative variations of the urinary secretion were determined by counting the drops that escaped from each canula in the course of a minute, and by measuring the total quantity excreted in a fixed time. The intensity of the polyuria produced is indicated by a few examples. In one case, after the injection of a considerable, but not specified quantity of sugar, a dog excreted 70 c.c. by a single ureter in ten minutes; at that rate about twenty litres would be passed in twenty-four hours by both ureters. In another case, a dog, after having excreted in three hours by the two ureters 28 c.c. of urine, received one intra-venous injection of 44 grammes of sugar dissolved in a small quantity of water, and in the half hour immediately following, it excreted 364 c.c. of urine.

The polyuria appeared very soon, as a rule about a minute and a half after the injection, and when only a small quantity of sugar had been injected; it also disappeared rapidly. The injection of a small quantity of sugar, about 0.50 grammes for 1 kilo. of the weight of the animal (7½ grains for every 2½ pounds), was sufficient to produce marked polyuria, though this was of course not so excessive as in the above examples. The diuresis could not be attributed to the water employed to dissolve the sugar, as injections of even ten times the quantity of water employed in the experiments failed to produce any appreciable augmentation of the urinary secretion. It is scarcely necessary to add that from the second minute after the injection the urine contained very large quantities of sugar. As the urine increased in quantity, it contained proportionately less urea, but this apparent diminution was more than compensated by the augmentation of the urinary secretion; the total quantity of urea excreted was increased as well as the water. Hence, the authors claim that their experiments prove that experimental glycæmia produces not only glycosuria, but also polyuria and azoturia.—*Gazette Méd. de Paris*, Aug. 28, 1879.

TREATMENT OF OBSTINATE SCIATICA BY INJECTIONS OF NITRATE OF SILVER.—M. Damaschino has very frequently employed this method of treatment, which was first recommended by Luton, of Rheims. He injects five drops of a 25 per cent. solution of nitrate of silver into the subcutaneous cellular tissue, usually close to the point of emergence of the affected nerve. Immediate relief from the neuralgic pain is almost invariably obtained. The pain caused by the injection is sometimes very severe, and a small, sharply circumscribed phlegmon forms, which often terminates in suppuration. The pus usually escapes by the orifice left by the needle, but it may be necessary to use the knife. In a case recently treated by M. Damaschino in the hôpital Laennec, only two drops of the nitrate of silver solution were injected. The pain caused by the injection was very acute, but the neuralgia was immediately and permanently cured. A small abscess subsequently formed and had to be freely opened. Several similar cases are reported in the thesis of M. Dureau (Paris, 1877).—*Gazette des Hôpitaux*, Aug. 23, 1879.

THE PHYSIOLOGICAL ACTION OF THE BROMHYDRATE OF CONIA.—The following are the conclusions drawn by M. J. L. Prévost from his experiments on animals with this drug:

1. The paralysis produced by the bromhydrate of

conia is the result of paralysis of the motor nerves, which also lose their excitability.

2. When the circulation is cut off from the hind quarters of a frog, the nerves being left intact, and a dose of from fifteen milligrammes to two centigrammes of the bromhydrate of conia is introduced under the skin of the back, the nerves of the hind legs remain excitable, and these limbs react to excitations applied to the front legs, although the latter are themselves paralyzed by the poison.

3. This effect is rendered more manifest when the frog is poisoned with strychnia; the effects of strychnia and of bromhydrate of conia can then be observed simultaneously in the same animal.

4. The pneumogastric is paralyzed before the other nerves, and its excitability also reappears more promptly when the elimination of the poison takes place.

5. The urinary, salivary, and lacrymal secretions are stimulated by the bromhydrate of conia.

6. The excretion of the poison in the urine has been demonstrated by the experiments. The urine of a cat poisoned by the drug was evaporated to a syrupy consistence in a water-bath, and injected under the skin of several frogs, producing in these animals the characteristic symptoms of poisoning by bromhydrate of conia.

7. The glandular nerves retain their excitability, and secretion can be excited by the application of electricity to them. When the vagi and the nerves of the striated muscles had lost their excitability, electric excitation of the cervical sympathetic and of the tympanico-lingual nerve caused a flow of saliva. Excitation of the peripheral ends of the nerves of the fore leg caused secretion of sweat in the plantar surface of a cat's paw, when electrization of the nerve no longer excited muscular contractions.

8. When warm-blooded animals are poisoned by the bromhydrate of conia, and artificial respiration is kept up, the heart shows the greatest power of resistance to the poison; it is the ultimum moriens. It continues to beat even longer than the normal heart after the artificial respiration is discontinued, or when it is removed from the body. In rabbits and cats, direct electrization of the heart by a strong induction current did not produce paralysis, when the poisoning had been pushed to complete loss of excitability of the sciatic nerve. The result was different, however, in the case of a cock. When, in rabbits, the excitability of the sciatic was not entirely destroyed, the heart could be paralyzed by direct electrization, but only after repeated trials.

9. It is very doubtful whether the nerve centres are directly affected by the bromhydrate of conia. The convulsions observed in warm-blooded animals in the last stage of the poisoning are the result of the asphyxia consequent on the paralysis of the mechanical apparatus of respiration. They can be prevented by artificial respiration.

10. The muscular contractility is not diminished by the bromhydrate of conia.—*Archives Générales de Médecine*, September, 1879.

REMOVAL OF AN EXTENSIVE SARCOMA OF THE CHEST.

—At the recent Congress of the Society of German Surgeons at Berlin, Dr. Kolaczek, of Breslau, reported the case of a woman, aged forty-eight years, from whom he had removed an enormous sarcoma, which was situated on the left side of the thoracic wall anteriorly. In removing the tumor it was necessary to resect the third, fourth, fifth, and sixth ribs, with a portion of the costal pleura. The opening left was as

large as the hand; it was covered with a skin flap, a drainage-tube was introduced and brought out through a counter-opening situated posteriorly, and Lister's dressing was applied. The patient recovered. The skin flap adhered to the lung and pericardium, and with each inspiration a depression is produced in which the two fists can be put.—*Le Progrès Médical*, Aug. 30, 1879.

EXTIRPATION OF THE LARYNX AND OF THE PHARYNX.

—At the recent Congress of German Surgeons in Berlin, Professor Langenbeck stated that he had performed the operation of extirpation of the pharynx three times, and that he considered the operation justifiable, although all his cases were unsuccessful. The following are the steps of the operation: First of all, tracheotomy must be performed, and the canula of Trendelenberg introduced; then an incision is carried from the body of the lower jaw, midway between the symphysis and the angle, toward the greater cornu of the hyoid bone, and thence along the anterior border of the sterno-mastoid as far as the upper extremity of the tracheotomy incision. Next, the submaxillary gland must be removed, the lingual artery tied, the stylo-hyoid and the digastric muscles detached from the hyoid bone; the pharynx is then laid bare and can be dissected out, the larynx meanwhile being drawn to the opposite side. The principal dangers to be apprehended are peri-oesophageal phlegmon extending into the mediastinum, and pneumonia from the introduction of foreign bodies into the air-passages.

At the same congress, Professor Billroth stated that six weeks previously he had removed from a woman, aged forty-two years, the pharynx, the cervical portion of the oesophagus, the larynx, a part of the trachea, and all the thyroid gland, for a cancer of the pharynx involving the posterior portion of the larynx. He first performed a preventive tracheotomy, and nine days later proceeded to operate, after introducing the canula tampon of Trendelenburg. The incision was made along the anterior border of the sterno-mastoid. In the course of the operation Professor Billroth found that the tumor extended much further than had been supposed, and as he advanced, step by step, he found himself compelled to remove successively all of the larynx except the epiglottis, the upper rings of the trachea, a large portion of the pharynx, the oesophagus as far as the sternum, and the whole of the thyroid body. An elastic tube was placed in the oesophagus for the introduction of aliment. During the first four weeks the patient did well, the wound gradually contracting, and the elastic tube was then removed in the hope that the pharynx would unite with the lower portion of the oesophagus and form a permanent canal for the passage of food. After the removal of the tube, however, deglutition was accompanied by suffocative attacks and vomiting, and the canal contracted, rendering the passage of bougies necessary. In the sixth week a false passage was made in the peri-oesophageal tissue. Pericarditis and death followed.

Kolaczek, of Breslau, removed a cancer of the posterior wall of the pharynx by a supra-hyoidean pharyngotomy, eight weeks before the congress met. The patient was still living at the date of the report, and was nourished through a tube placed in the oesophageal fistula. Koernig, of Göttingen, and Gussenbauer, of Prague, have also removed cancers of the pharynx, and, like Langenbeck, lost their patients from pneumonia due to the introduction of food into the lungs. To avoid this danger, Thiersch has proposed the preliminary establishment of a gastric fistula.—*Le Progrès Médical*, Aug. 30, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, October 25, 1879.

THE INTERNATIONAL CONGRESS OF MEDICAL SCIENCE.

THE sixth meeting of this congress took place at Amsterdam during the week from September 7th to September 18th.

The proceedings of a body with so pretentious a title are naturally to be judged from a high standpoint; and this year, in addition, they have to meet comparison with the exceptionally good work of the British and the French associations. The addresses delivered and papers presented, however, so far as they have yet been published, seem to have been worthy of the occasion, and to have furnished much new and valuable material to the profession at large.

The work was done in general sessions and in nine sections. Medicine and surgery, however, received the most notable contributions, while at the general meeting the addresses of President Donders and Professor Virchow excited the greatest attention.

The opening session was attended by nearly a thousand persons, mostly physicians, and these listened, it is said, with rapt attention to President Donders, who spoke for two hours upon the present condition of medical science and the importance of experimental physiology to its future growth. His address was delivered in French, the language adopted by the Congress as the common medium of communication.

Among the contributors of papers on the following days Englishmen and Americans were conspicuously absent. The meeting of the British Association a few weeks before had evidently drained the former dry, and America is too far away to be excited to much interest in a congress at Amsterdam. The meeting of the French Association for the Advancement of Science during the previous week had also diminished the number from that country. The majority of papers, therefore, came from Germany,

Austria, and Italy. The only prominent Englishman was Mr. Lister, who made what would seem to have been a very impassioned address in defence of his antiseptic method, and whose presence and remarks were received with much enthusiasm. Of Americans, Dr. Sayre made a very successful demonstration of the value of plaster-of-Paris jackets in Pott's disease, and Dr. E. Seguin discussed the metric system, as he had done previously at Cork and Montpellier.

The most interesting papers before the special sections were on medical subjects, and they were quite remarkable for their very practical character. The subject of phthisis was presented by four delegates. Dr. Stokvis related experiments showing that phosphoric acid and phosphates are not increased in the urine during any stage of the disease, but continue in about the same proportion as in health. While not denying the value of the phosphates in treatment, he considered it proved that they do not act by supplying an element drained from the system by the disease. A paper that excited more discussion was read by Mr. Delaunay, who asserted that phthisis was essentially a disease of warm climates; that in the north it was slow in progress and more amenable to treatment, while directly in proportion to its nearness to the equator did it become more rapid and fatal. He urged that, instead of having sanatoria in the south for northern invalids, there should be sanatoria in the north alone and for all.

In connection with the subject of fevers, a very interesting discovery by M. D'Arsonval, a distinguished young French physiologist, was announced. It consisted of an apparatus by which the amount of caloric thrown off in a given time could be accurately and easily measured. Previous methods have been very imperfect, but it will now be possible to measure the amount of heat generated under the various conditions of starvation, fever, putrid infection, and so forth.

In the more practical direction of the treatment of continued fevers, there were several contributions. Statistics in favor of cooling baths were given by Dr. Brongest, who urged their special value with infants, and at the beginning of pyrexial conditions. Another writer advocated the douche in place of the bath, and from the descriptions it would appear that the idea of the Kibbe bed has been seized upon in the East. The author of the paper is Dr. Marcowitz.

The subject of metallotherapy was brought up in two papers, which are by far the most satisfactory contributions to this question that have been made for some time. Professor Eulenberg, of Greifswald, in a paper entitled "Researches on the Transfer of Sensibility," showed that such transfer is a physiological fact which is simply exaggerated in pathological cases. Thus, it was found that whenever a portion of the skin is made hyperæsthetic upon one side of the body, delicate tests show a diminution in sensibility

at a corresponding point on the opposite side; or, if one side be made anæsthetic, the other will be slightly hyperæsthetic. The demonstration of this fact, if supported by other authorities, will take from the theory of "expectant attention" a burden which it has been apparent was altogether too great for it.

As a complement to this physiological fact, MM. Proust and Ballet related certain experiments with magnets and metals upon persons suffering from organic hemianæsthesia. Even upon these they assert that a certain amount of transference of sensibility could be obtained.

The pathology of Bright's disease was discussed very exhaustively by Dr. Rosenstein. This gentleman announced what he seemed to consider a new classification of the various forms of this disease. Though possibly novel to the International Congress, it is remarkably like that taught in one of the colleges of this city, and need not be enlarged upon here.

Some very strikingly novel theories of this disease, however, were presented by Professor Semmola, of Naples. This learned professor states that the real chronic Bright's disease is a general affection—a defect in nutrition—in which the changes that take place in the kidneys do not constitute the primary cause of the principal symptoms of the disease. The gradual effect of moist cold upon the skin is the only true cause of Bright's disease. It acts by paralyzing the respiratory function of that organ. In consequence of this paralysis there are changes in the blood; the albuminoids are not perfectly assimilated or oxidized; there is an excess of albumen and deficiency of urea both in the blood and urine; these conditions in time producing the histological changes in the kidneys.

A bare statement of the theory by no means does it justice, and the author appears to have demonstrated some important physiological facts, whatever be the value of his generalizations.

In the section of surgery, aside from Lister's defense of his antiseptic method, perhaps the most notable event was the address by Professor Verneuil on the "Indications for Operation in Individuals suffering from Constitutional Diseases." While asserting the occasional necessity for operation in persons affected with constitutional diseases, such as cancer or scrofula, he argued that heretofore the results of such interference have not done much credit to surgery, and that if surgeons knew more of the diatheses with which they tampered they would not operate so often.

Prof. Van Gondever, in a paper upon lithotomy, spoke very disparagingly of lithotripsy, and urged the especial value of the suprapubic operation; this he claimed to be best adapted for children in all cases, and to be often the best method for adults.

There were several contributions to orthopædic surgery—none, however, exciting the interest which Dr. Sayre caused by his demonstrations.

Gynecology received very considerable attention, as did also the departments of otology and ophthalmology.

Professor Virchow made an address upon medical education, in which he discussed especially the kind of preliminary training which the medical student should have had. He sketched out a preliminary course in the classics and the physical and natural sciences, which would be likely to quite paralyze the average American plough-boy ambitious to deal in pills. The address was delivered, contrary to rule, in German, and consequently did not receive the attention that its value deserved.

We have been able to give but a very slight sketch of the important work performed by this Congress. All that was done, however, is upon record, and whatever is of permanent value will reach, in time, the whole profession. It is as diffusers to the many of the knowledge gained by the more favored or competent few that such conventions deserve our utmost praise and encouragement, and none, perhaps, more than the International Congress, for, if properly conducted, there could be no agency so effective in making popular all that is new and good in medical science.

STATE SOCIETY'S TRANSACTIONS.

We are in receipt of a number of pamphlets containing the transactions of certain State societies. We find ourselves very frequently favored with these productions, as there seems to be at present no organization which is content with anything less than an elegant edition of its annual proceedings.

The works before us give evidence of the value of State societies in stimulating, to a certain extent, scientific and practical inquiry, as well as in raising the general standard of the profession. They contain the usual assortment of articles. There are some very long papers, the offsprings of great occasions or discursive minds; there are presidential addresses adorned as ever with chaste rhetoric and poetical quotations; there are a good many papers written carelessly; and we find a few from the men of hobbies and unbalanced enthusiasms. There are, as is usual also, a good many papers that deserve wide perusal and attention.

It is a fact, however, that the proceedings of State societies do not, as a rule, represent in any degree the results of the observation and study of its members.

We may instance the State Society of Minnesota. This is a well-organized and practical body. It has adopted the custom of appointing committees on various subjects, and these committees issue circulars to the physicians of the State, requesting information upon these topics. The replies are collected and presented in a report. Theoretically this is very well; practically the replies are comparatively few, are often hastily written, and, individually, are valueless.

Collected, properly used, and extensively circulated, even a small number might be made of some value; but, issued as they are in a volume of transactions, they are essentially dead.

We repeat that State societies do not accomplish the high work that should be expected of them. We believe the reason lies to a considerable extent in the fact that the matter presented at its meetings is too often liable to perish with the session at which it is read.

The medical public does not get it; and few men will do hard work without the stimulus of a possible future appreciation of their efforts. A physician who has some good cases to work up or facts to collate, can hardly feel rewarded for weeks of labor by permission to tell his story before a small audience of professional brethren, or even by seeing it printed in a beggarly edition of society proceedings. We believe it should be the aim of societies to see that their best work is put in medical journals, and to make it understood also that a wide publication through such channels will be the reward of all conscientious work. The policy that has been adopted, or virtually so, by some societies, of trying to increase the value and sale of their transactions by excluding their papers from the journals, is simply suicidal. Transactions never reach the circulation of any reputable journal, and they are an inadequate medium for the diffusion of medical knowledge. We doubt if any one ever picked up a volume of transactions without having to blow the dust off first; if any one has, it is extremely creditable to the housekeeper.

There are, of course, certain records to be kept, and certain kinds of contributions which make these volumes a necessity; but it should be made clear among the working men of societies that the chief end of their labors is not the production of an annual volume, but a general diffusion of their work, through periodicals; while with such a stimulus there will probably be no remarkable epoch in medicine created, there will certainly be more creditable results from the annual meetings of medical men.

We shall not deny a certain lack of perfect disinterestedness in our thus urging societies to put their work, when possible, into journals. But, however this may be, it does not lessen the force or wisdom of the policy we recommend.

INTERNATIONAL QUARANTINE.—At a conference for the reform and codification of the law of nations, assembled Aug. 19th in Guildhall, England, Sir Sherston Baker read a paper on "International Rules of Quarantine." In it he propounded a scheme drafted in the form of forty articles, setting forth that an international bill of health might be granted by the local authorities to every vessel leaving its port, to be delivered to the authorities at its port of destination. The matter was referred to a committee for examination.

Reviews and Notices of Books.

THE NATIONAL DISPENSATORY, containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines, including those recognized in the Pharmacopœias of the United States, Great Britain, and Germany, with numerous references to the French Codex. By ALFRED STILLÉ, M.D., LL.D., and JOHN M. MATSCH, Phar. D. Second edition. Philadelphia: H. C. Lea. 1879.

We are pleased to see that a second edition of this great work has been called for by the profession. As it is but a few months since we reviewed it at length, it is now necessary to add that the volume has been thoroughly revised and somewhat augmented.

EYEBALL-TENSION—ITS EFFECTS ON THE SIGHT AND ITS TREATMENT. By W. SPENCER WATSON, F.R.C.S. Eng., B. M. Lond., Senior Surgeon to the Royal South London Ophthalmic Hospital, Consulting Ophthalmic Surgeon to the South London Medical Aid Institute, etc.; formerly Assistant-Surgeon to King's College Hospital. With woodcuts and illustrative cases. London: H. K. Lewis, 186 Gower Street. 1879. Pp. 70.

In his preface the author says he has "adopted the term *eyeball-tension* in preference to *glaucoma*, as being more expressive of the acknowledged condition of the eye in the disease in question," etc. We think the profession will object to this change in nomenclature as being not very well founded. All eyeballs, whether diseased or not, have eyeball-tension. Some have increased tension, some diminished tension, and some normal tension. If we wish, then, to substitute for glaucoma the name of the most constant symptom of that disease, we must say "increased eyeball tension." This name would not only be inconveniently long, but in those cases of glaucoma which now and then turn up, in which the tension is normal, or even diminished, would be a misnomer.

It is also well known that the tension of the eyeball may be increased in other diseases than glaucoma. All things considered, probably we cannot do better than to adhere to the well-understood and generally accepted name, glaucoma.

We cannot help wishing that the author had tested the vision in his cases by the modern method—that of Snellen—instead of telling us that the patient could read "J.2." or "J.10." without giving us the distance at which he could read it. We are thus left without data from which to estimate the exact amount of vision in each case.

We are also sorry to find no information in regard to the *refraction* of his cases, either in those tabulated or in those detailed in the appendix. But notwithstanding these and a few other defects, the book is a readable and instructive one. Nowhere have we seen a more simple and natural classification of the different forms of glaucoma, or a more lucid explanation of the various theories in regard to its causation than in Chapter I.

In Chapter II. the author gives a succinct history of the rational treatment of glaucoma, describes and comments upon the several operations performed for its relief, and gives us his impressions as to the value of eserine and pilocarpine in the treatment of glaucoma.

On page 14 he says: "Eserine is very valuable in chronic cases." This statement does not agree with the general experience of ophthalmologists.

Contrary to the author's experience (page 18) we have seen several cases in which acute glaucoma at-

tacked the fellow-eye within a day or two after iridectomy for *chronic* glaucoma. We have also seen more than one case in which "iridectomy performed on one eye hastened the access of the disease" in its fellow, the latter having previously shown no premonitory symptom.

We would recommend the book to the profession as the best monograph on the subject in the English language.

ON DISEASES OF THE STOMACH; the various Forms of Dyspepsia: their Diagnosis and Treatment. By S. O. HABERSHON, M.D., London. Third edition. Philadelphia: Lindsay & Blakiston. 1879. Pp. 824.

A BOOK that has already gone through two editions seldom calls but for a short notice from the reviewer, and this volume of Dr. Habershon's is no exception to the rule. It is written in a pleasing style, and treats of diseases of the stomach in a practical manner. It is divided into twenty chapters, fifteen of which are devoted to a consideration of the different forms of Dyspepsia, while the remaining treat of Degeneration, Ulceration, Cancerous Disease, and Spasm of the Stomach. Our author, in the management of diseases of this viscus, rightly places medicines secondary to proper diet, and protests against the too common custom of constantly dosing dyspeptics with drugs which, in the end, leave the patient in a worse condition than at the beginning of treatment. We can cordially recommend this book of Dr. Habershon's to the profession.

A GUIDE TO SURGICAL DIAGNOSIS. By CHRISTOPHER HEATH, F.R.C.S., Holmes Professor of Clinical Surgery in University College, London, and Surgeon to University College Hospital; Honorary Fellow of King's College, London. Philadelphia: Lindsay & Blakiston. 1879. Pp. 214.

MR. HEATH is so well known both as a practical surgeon, teacher, and writer, that anything from his pen requires no introduction from the hands of a reviewer, and scarcely any notice but the announcement of the fact that he has written a book. He says in his preface that "having been a clinical teacher for some years, I have constantly been struck with the difficulty which even a well-read student finds in bringing his knowledge to bear promptly and efficiently upon the patient before him. The recognition of the several symptoms which the student has learned in lectures or by reading can be best directed by the teacher at the bedside; but in his absence it is not always easy for the student to get a clue to the nature of the case before him. An attempt is made in the following pages to afford this assistance. . . ."

The first chapter is on case-taking, in which he gives a general plan of the proper manner of recording the history of a patient, the course and treatment, which many practitioners who report their cases for medical journals would do well to study with care; they could certainly do so with profit. The arrangement of the subject-matter is not in two columns, but the surgical diseases are considered in paragraphs, with marginal notes of the subject of each section. There are throughout the book tables of differential diagnosis; thus of "concussion and compression of the brain," of "ulcers of the face, injuries about the shoulder," etc. The character of the work can be better illustrated by a quotation taken at random—thus, on page 202, § 458:

"*Osteomyelitis*.—A swollen, tense condition of a stump in which there is no 'pocketing' of matter, accompanied by a great rise of temperature, and a rapid, feeble pulse, is apt to be followed by profuse

discharge of effusive pus from the medullary canal and around the bone, which will be bare, the case being one of *osteomyelitis*, or inflammation of the medullary membrane. Symptoms of pysemia may at any moment arise in such a case."

OPHTHALMIC OUT-PATIENT PRACTICE. By CHARLES HIGGINS, F.R.C.S., Ophthalmic Assistant Surgeon, Guy's Hospital; Lecturer on Ophthalmology, Guy's Hospital Medical School. Second Edition. Philadelphia: Lindsay & Blakiston. 1879.

THIS little book of 116 pages seems to be a *résumé* of the author's lectures on Ophthalmology at Guy's Hospital. Being devoted exclusively, as its title indicates, to out-patient practice, only the most common affections of the eye, and such as come most frequently under the observation of the general practitioner, are touched upon.

The author has a happy faculty of stating concisely and clearly the more important points in the diagnosis and treatment of each disease spoken of, and as far as it goes, the work seems to be, for the most part, fully up to the times.

Some of the statements are, however, open to criticism. For instance, on page 81, it is stated that "the presence of nodules of lymph upon the iris shows that the iritis is syphilitic." Most ophthalmologists must have seen exceptions to this rule, and it is now very generally understood that there is no one unfailing diagnostic symptom of syphilitic iritis.

In purulent ophthalmia the author recommends (page 19) that a "bag of ice be laid upon the closed lids during the intervals at which the lotion is applied." We have found the weight of a bag of ice a serious objection, and that iced cloths, consisting of two thicknesses of old muslin or linen, frequently changed, are much more agreeable to the patient. The author fails to mention that, in these cases, operative interference, as canthotomy or paracentesis, is frequently necessary to save the eye.

The method of slitting up the canaliculus described upon page 47, is a somewhat antiquated one, and is now resorted to only in exceptional cases. The operation is almost universally performed with a probe-pointed knife, and without the use of a grooved director. Neither is it now the usual practice to wait five or six weeks after slitting up the canaliculus before trying "to relieve the structure (stricture?) of the duct by passing probes."

On page 101 it is stated that the retinal "veins are distinguished from the arteries . . . by the fact that the arteries are marked by a double contour, their margins being considerably darker than their centres." A little careful observation will convince any ophthalmoscopist that there is a light streak along the centres of the retinal veins as well as arteries.

The book is, in the main, a good one, however, and may be read with pleasure and with profit by the general practitioner, for whom it is evidently intended.

A NEW FUNCTION FOR THE SYMPATHETIC SYSTEM.—Dr. R. M. Bucke, Superintendent of the Asylum for the Insane at London, Ont., in an elaborate essay upon the moral nature of man, asserts that its seat is not in the cerebrum, but the sympathetic system. Some such idea was formerly advocated by Bichat, who contended that the passions were located in the organs of organic life. The close relation between emotional changes and functional derangements of the various viscera led to this idea.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, September 24, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

SUBPERIOSTEAL EXCISION OF ELBOW.

DR. LANGE exhibited a patient upon whom he had performed subperiosteal excision of the right elbow-joint, after Prof. Voight's method, and gave the following history: Patient was nineteen years of age, and had a stiff right elbow from his early childhood. He knew nothing about the cause of this trouble. The arm remained thin and powerless, and any exercising caused pain in the joint, especially during the last two years. Various methods of treatment were employed but without avail, and the patient finally resolved to get rid of his trouble by an operation.

At that time the patient was in good health. The right elbow was ankylosed at an angle of 90°, with a mobility of nearly 10°. The tissues about the joint were somewhat thickened, but no fistula or other indication of existing suppuration was present. The olecranon and head of the radius seemed thickened, and they were very painful on pressure, showing chronic osteitis. The operation was performed on the 25th of June by means of a bilateral incision, antiseptically made without spray, and by the bloodless method. The periosteum was carefully preserved; in all those places where important tendons or ligaments had their insertion (olecranon, coronoid process, epicondyles of humerus, etc.), thin layers of bone were separated by means of hammer and chisel, and remained in connection with the periosteum, according to the plan of Voight.

The operation was somewhat tedious and difficult, the periosteum being thickened and tense, and all recesses of the joint obliterated. Lister's gauze dressing was applied. The after-treatment consisted of a dorsal splint of plaster-of-Paris, with elevated position and slight extension. The position of the arm was about 150°. After the tenth day position was changed every second day to the extent of from 75° to 150°. At the end of third week, articulated silicate dressings (with shoulder-piece), which had a movable joint and rubber strips, were applied corresponding to the new joint. The joint allowed a slipping of the bones of the forearm upward and backward, according to the physiological position of the ulna. Active and passive movement were freely practised by causing the patient to lift a box filled with sand, the amount of which was increased every day. These exercises effected a stretching of the elbow. The arm, by means of the strip, was held in a right angle. The weight of the sand was chosen always a little beyond the strength of the patient to master it, so that it slowly extended the arm, the patient endeavoring to prevent this, and struggling against the weight by the power of his muscles. The rubber strips kept up a passive dragging of the ligaments and held the bones in a certain adaptation.

After the seventh week the apparatus could be omitted, the new formation of the bones being very significant, and almost complete cicatrization had been complete at end of fifth week. There had not been any significant discharge since the second week, only those places discharging superficially where the drainage-tube had been introduced.

The reaction after the excision had been quite in-

significant. A bloody infiltration of the arm and forearm disappeared under the physiological changes of color, and was reabsorbed without interfering with the healing process.

When the patient was exhibited to the Society, just three months after the operation, the elbow presented nearly its normal shape. Motion was between 80 and almost 180 degrees, without any abnormal lateral mobility. The condyles of humerus appeared stronger than normal. Pro- and supination almost normal (had been exercised also methodically every day, the apparatus being removed for this purpose). The head of the radius was well marked, and normally faced the external condyle. The olecranon was distinctly formed, but was a little smaller than normal. Above its apex something like a sesamoid bone could be felt in the triceps tendon. The arm was so strong that the patient was able to lift a chair, seizing it by the leg, and after stretching the arm he held the chair a good while in the air. The flexion to an acute angle was difficult. The specimen showed deep depressions in the articular part of the ulna, especially one behind the base of the coronoid process. Its walls were hard and smooth; they were covered by a dense fibrous tissue which surrounded a small quantity of cheesy matter. All the depressions in the bone were filled with a succulent fibrous tissue, which sent vascularized adhesions to the opposite cartilage: so the process was on its way to cicatrization. The bones of the humerus were almost normal; cartilage of radius showed some cicatricial depressions; its head had an abnormal process toward the articulation, with the ulna, which was entirely obliterated by a dense fibrous mass.

ERECT LUXATION OF THE HUMERUS.

A vigorous laborer, about forty-five years of age, when rolling a heavy piece of ice along an inclined plane, lost his balance, and, in tumbling forward, seized, by the elevated right hand, the projecting border of a barrel of beer, a series of them forming a comparatively narrow path. He fell down in spite of that, and felt "that something was turned out in his shoulder when he was in the air." He could not get up alone, and the arm remained in the erect position. Dr. L. saw him eight hours after injury, in consultation with Dr. Assenheimer. The patient was in bed, with the arm elevated to about 120 degrees, stretched in the elbow, hand in supination. He held with his hand a string, which had been attached to the upper border of his bedstead. Every sinking down of the arm caused a severe pain about the upper end of the middle third of the humerus, perhaps in consequence of dragging of the coraco-brachialis muscle: deltoid relaxed. There was a deep depression below the acromion. The head of the humerus could clearly be seen below the coracoid process and exceeding its line toward the middle line so that about the tubercle corresponded to the end of the coracoid process. The axis of the humerus corresponded to a line which might have crossed the articulation of sternum and third rib. If the patient made a strong lateral curvature of the trunk, so that the short ribs almost touched the crest of the ileum, and if at the same time he lowered his scapula as much as possible, he, when sitting, was able to rest the wrist upon the knee. The arm was prevented from falling by the coracoid process, and perhaps the pectoralis minor. The reduction was made without chloroform, patient sitting on a chair. The scapula was fixed by means of a towel. The elevation was increased, and after extending as much as possible, the arm was lowered, when the head of hu-

merus slipped forward under the coracoid process, and was placed against the border of the glenoid cavity. A further slight rotation inward made it slip to its normal position without difficulty. Recovery took place in a comparatively short time, so that after three weeks he was able to resume his work.

LARGE MAMMARY TUMOR.

Dr. A. C. Post exhibited the segment of an enormous tumor of the mammary gland, which he had removed by operation from a lady over sixty years of age. The whole tumor, after its removal, weighed nineteen pounds. It had existed for about fifteen years, was small when first observed, and grew very slowly. During the past three years it had grown rapidly, and finally reached such a size as to occasion extreme inconvenience and to prey upon her health. Dr. Post saw her early last spring and advised the removal of the growth, at the same time telling the patient that the operation was a hazardous one. She did not make up her mind to follow the advice until last July, when a hemorrhage occurred from an ulceration on the surface of the growth.

The operation was performed with the assistance of Dr. Sands, of this city, and Drs. Barker and Owen, of Morristown, N. J. The subcutaneous vessels were enormously enlarged, and it required very careful dissection to separate the integument from the tumor. The patient became very much exhausted while on the table, requiring repeated hypodermic injections of brandy. After the operation she had a very feeble pulse, and died in the course of an hour. The tumor was fibro-cystic in character.

YELLOW FEVER—FATTY LIVER—PARENCHYMATOUS CHANGE IN THE KIDNEYS—URÆMIC COMA.

Dr. SATTERTHWAITHE presented the liver, spleen, and kidneys, and microscopic sections from a patient who died in the Presbyterian Hospital, of yellow fever, on July 29th.

The following was the outline of the clinical history prepared by Dr. Wetmore, of the hospital staff, and Dr. W. H. Porter had prepared the microscopic sections:

Margaret Cregan, æt. 32, Ireland; widow; stewardess; was admitted July 25, 1879. Family history excellent. Personal health had always been good. Her illness dated back only five days, & æ., it commenced July 30, 1879. She then had frontal headache and general "soreness all over her back and legs." At 10 A.M., on the 30th, she had a severe chill, followed by some fever. There was nausea, but no vomiting; there was also some diarrhœa. She had chills night and day, with fever and sweating, for the five days preceding admission. When admitted her temperature was 105° F., pulse 108. The diagnosis of remittent fever was made, and she was given cinchonidia sulph., gr. xx., in divided doses. The symptoms at that time were manifestly insufficient to establish the subsequent diagnosis.

On the following day the pulse had fallen to 98; temperature 104° F.; and in the evening to 93; temperature 104½° F. The patient slept most of the day. She had some diarrhœa, but no pain. Her diet was milk chiefly. The urine examination gave the following results: sp. gr. 1020; color, amber; reaction, alkaline; odor, ammoniacal; sediment, yellowish-white; albumen, half volume. The amount of urine could not be ascertained, because it was passed with the evacuations from the bowels. Microscopic examination revealed triple phosphate and urate of ammonia crystals, with some granular casts and blood-corpuscles.

On the seventh day (July 27th) the pulse had again

fallen in the morning from the figures of the preceding morning; it was 94; temperature 102½°. In the evening the pulse was 90, and temperature lower again (101°).

On July 28th, the eighth day, she vomited occasionally, though the cinchonidia was kept down half an hour. Pulse 88, and temperature the same as the preceding night, i. e., 101°; evening, pulse 80, temperature 101°. The vomited matter was white (probably the milk she drank). The diarrhœa continued. The color of the passages was light yellow. Menstruation occurred this afternoon.

July 29th (ninth day).—The night was passed with comparative comfort. Twice she vomited some dark matter. Jaundice was now noticed for the first time. The pulse was now weak and she was delirious, recognizing no one. The second sound of the heart was almost imperceptible. Respiration labored, and 80 per minute. At noon it was found that she had passed no water since 6 A. M. Hot cloths were then applied to the bowels, and she was cupped over the kidneys: no œdema anywhere. Shortly afterward a catheter was introduced, and brought away a drachm of dark urine. It contained 50 per cent. per volume of albumen. The microscope also detected blood and the epithelium that is described as renal. Pulse was 88, and temperature 99½°.

As it was plain she was suffering from suppression of urine, cups were again applied over the kidneys, and one-quarter of a grain pilocarpin hydrochlor. was injected hypodermically. She died at 1.50 P.M. Autopsical examination twenty-one hours after death, by Dr. W. H. Porter, curator to the hospital, in the presence of Drs. E. C. Janeway, W. De F. Day, and E. B. Ramsdell:

External examination.—Rigor mortis well marked; body well provided with fat, and in a good state of preservation; general jaundice of the skin; numerous ante-mortem ecchymoses on the lower extremities, together with the usual post-mortem discolorations on the under surface of the body and limbs.

Dr. PUTNAM-JACOBI asked if there were any evidences of the reabsorption of bile. This seemed a possible condition, in view of the fact that the liver-cells were atrophied.

Dr. SATTERTHWAITHE remarked that the liver-cells were filled with oil-globules and granular fat, and were rather swollen than otherwise.

Dr. PUTNAM-JACOBI thought that a distinction should be made between fatty degeneration in which mere globules were deposited and that condition in which only granules were present.

Dr. SATTERTHWAITHE did not think that there was, practically speaking, any difference between these conditions.

Dr. PUTNAM-JACOBI was of the opinion that a distinction should be made between fatty infiltration and fatty degeneration of liver-cells. In the former cases the cells became broken down, and in the latter their functions were not markedly impaired.

Dr. SATTERTHWAITHE thought that the particular size of the oil-globules was not of so much account as their relative position in the substance of the hepatic lobule. If the deposit had extended to the centre of the acinus around the hepatic vein, the function of the liver was interfered with, if not entirely abolished. On the other hand, when the so-called simple fatty degeneration took place, there was usually a deposit of oil merely in the cells at the periphery of the lobule.

FOREIGN BODY IN THE EYE.

Dr. KNAPP exhibited an eye removed by operation

from a man sixty years of age. The organ had contained a foreign body for two years. The patient, at the time of the accident, was passing by a man who was pecking a mill-stone, when he felt that some sharp body entered his eye. Dr. Knapp saw him at the end of eight months afterwards, and discovered a shrunken and movable cataract in the injured eye. As no foreign body was discovered, Dr. Knapp thought that it was enveloped in the cataract. Last June the patient presented himself again, with well-marked irritation in the eye. Extirpation was advised accordingly. On examining the eye afterward, the membranes, except the crystalline lens, were completely normal. At the bottom of the ciliary processes a small piece of iron was discovered, but there was no new formation of connective tissue. In the absence of the latter, Dr. Knapp did not think it impossible that the foreign body had been originally encapsulated in the cataract, and that by a shrinking of the cataract it had fallen to the position where found.

AN INTERESTING CASE OF EXOPHTHALMUS.

DR. SEGUIN presented a photograph of a patient with a remarkable exophthalmus. The patient came to the Manhattan Eye and Ear Department on account of projecting eyeballs. Dr. Webster found, in connection with that condition, a pulse ranging from 92 to 96, and the anterior portion of the neck normal. There were no other symptoms in the case. The point of interest centred in the fact that the exophthalmus was the only symptom of Graves's disease which was present. Again, the cause of the disease could not be explained by the mere contraction of Müller's muscle. The unusual point in this case was disease of the optic nerve. There were no evidences of a pulsating tumor.

DR. KNAPP referred, in this connection, to sixty cases of exophthalmus which were on record. Only in a very few of these was aneurism found. In quite a large number the carotid was tied, and some of these cases were cured. He had never met with a case of Graves's disease combined with disease of the optic nerve.

DR. SEGUIN asked if there was any bruit in these cases.

DR. KNAPP answered that such a bruit was subjective in the majority of cases.

OBILITERATION OF THE PANCREATIC DUCT.

DR. BEVERLEY ROBINSON presented a specimen of obliteration of the pancreatic duct due to carcinoma, and accompanied with great emaciation. The history of the case was given in detail:

George Davis, *set.* 27 years; English; groom; unmarried. Admitted to hospital June 28, 1879. About one and a half months ago he lost appetite, and about a month ago began to vomit everything he ate soon after taking food. Never saw any blood in vomits. This condition continued up to the present time. Had pain in the stomach after eating. Abdomen has been distended for about two weeks; legs and feet became swollen about the same time. Passes very little water; bowels regular. Has grown weak and thin. Urine normal. Fluid in peritoneal cavity. Liver cannot be made out. Apex-beat of heart in third intercostal space, above the nipple, and synchronous retraction in fourth interspace.

July 30th.—Paracentesis performed, and 344 ounces of pale yellow fluid, somewhat cloudy, was drawn off.

July 31st.—Urine normal. Liver not felt. A nodulated growth was felt in the median line, below the border of the ribs and extending to the right.

August 8th.—Scanty urine for several days. Today passed 3 ix.

September 18th.—Patient has vomited almost daily since admission. No blood has been seen in the vomit. Died of asthenia.

September 19th.—Post-mortem examination. Rigor mortis well marked. Cadaver much emaciated. Abdominal cavity filled with clear straw-colored fluid, distending the abdominal walls, and pressing up the diaphragm. Lungs and heart very small. Kidneys normal. Intestines atrophied and walls thickened; surface of rectum covered in spots with fibrinous nodules. Mesentery also covered with fibrin. A small piece of omentum only remained floating about loose in the abdominal cavity. Stomach, intestines, pancreas, and liver were firmly adherent. At pyloric end of stomach, on posterior surface, was a tumor involving the pyloric orifice, which was about the size of a goose-quill. The pancreas was almost completely obliterated by the tumor. Liver small. Gall-bladder small, and cystic-duct obliterated; hepatic duct and common bile-duct free.

The question having arisen as to the significance of fat in the stools in diseases of the pancreas, Dr. PUTNAM-JACOBI remarked that while fatty stools were not always present in such cases, they did sometimes exist when there was simple ulceration of the duodenum.

DR. SATTERTHWAITHE stated that primary cancer of the pancreas was almost unknown. It was almost without exception a secondary disease to cancer of the stomach.

DR. JOHN C. PETERS, in this connection, referred to a case of cancer of the head of the pancreas which came under his observation some months since, in which pressure upon the pylorus caused enormous distention of the stomach. The history and specimen had been presented to the Society.

RAPID LITHOTRITY.

DR. KEYES exhibited calculi removed by rapid lithotripsy from a physician aged seventy-three. He had suffered from the symptoms of stone for a number of years. The calculi, which weighed altogether ten and a half drachms, were removed in an hour and twenty-five minutes. This long time was due to the difficulty in grasping the largest stone, which was an inch and a half in diameter, and situated in a sacculated portion of the bladder posteriorly.

Dr. Keyes also took occasion to exhibit Sir Henry Thompson's new instrument, which had been used on that occasion.

Dr. Keyes also exhibited small renal calculi which had evidently passed through the ureter into the bladder without producing pain.

DR. PETERS referred to a similar case in his practice.

Correspondence.

CAUSES OF SUDDEN DEATH DURING THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—Dr. Putnam-Jacobi, in the response written to our criticism of her letter on "Causes of sudden Death during Thoracentesis," agrees with us in believing that the cause in question is "exaggerated cardiac diastole," as she calls it. We evidently did not quite understand Dr. Putnam-Jacobi's position in regard to the question from her first communication. We must still beg leave to differ, however, in respect to the causes of this "exaggerated diastole."

In speaking of our theory that the cause of the "exaggerated diastole is the influx of venous blood,"

Dr. Putnam-Jacobi says, "it is evident that this" (i.e., influx of venous blood) "*is consequent upon the exaggerated diastole of the heart,*" i.e., what we consider to be a cause is "evidently" to the doctor an effect. To us this is not evident.

The direct effect of the aspiratory force in causing cardiac dilatation (i.e., leaving out of consideration the dilatation which we believe to be produced by the forcing in of blood from the veins) is due simply and solely to the dilatation of those contents of the heart which are capable of expanding when atmospheric pressure is lessened. The only substances which can do this are the gases. The dilatation of the heart, therefore, which results directly from the aspiratory force exerted on it can be produced only by the expansion of the gaseous contents of the heart. These gaseous contents consist of the oxygen, carbonic acid, and whatever other gases are contained in solution in the blood or tissues. If the heart was composed of perfect solids and perfect liquids only, the aspiratory force might exert itself for a century and not enlarge it one hair's-breadth. It must be firmly held in mind that there is really *no force whatever outside of the heart tugging at it and forcing it to dilate*. The dilating force, if the heart had no communication with the veins, would be *simply and solely* the expansive power of its contained gases, which, having been absorbed under an atmospheric pressure of about fifteen pounds to a square inch, are partially relieved from that pressure by the creation of a partial vacuum in the rigid-walled space in which the soft bag, the heart, which contains them, is suspended. It is this expansion which Dr. Putnam-Jacobi apparently believes to be the sole and sufficient cause of the fatal dilatation of the right ventricle. It is an expansion so caused, moreover, which induces the venous blood to rush to the ventricle from the veins. The atmospheric pressure in the right heart is *below* normal. The atmospheric pressure on the veins is normal. Yet Dr. Putnam-Jacobi believes that the influx of blood from the veins to the right heart "*is consequent upon the exaggerated diastole of the heart.*"

It seems to us that Dr. Putnam-Jacobi has fallen a victim to the false conception involved in the term "negative pressure" to which we called attention in the RECORD of September 27th, i.e., Dr. Putnam-Jacobi has supposed that the fatal dilatation of the heart was the cause of the venous influx, whereas it seems perfectly evident, on thorough analysis of all the forces at work in the problem, that the venous influx is the cause of the fatal dilatation of the heart.

After the above analysis it is perfectly obvious that as soon as atmospheric equilibrium is restored, these expanded gases will at once be reabsorbed, and the right heart abnormally distended by this abnormally large bolus of blood (which has been forced into it *simply and solely* by the atmospheric pressure *from without* pressing on the veins and squeezing the blood into the heart till equilibrium is restored), fails to respond to the increased strain. The expansion of the right heart caused by expansion of gases before the blood is forced in, seems to us an unimportant factor in the problem (see below).

In this resulting paralysis there exists inability of the muscular fibre of the heart to contract under the increased strain, either from insufficiency of the intrinsic contractile power of the fibre, insufficiency of the stimulus to contraction (nerve-force), or both. Dr. Putnam-Jacobi claims that it is insufficiency of nerve-force, which results from assumed preceding *lessened* activity of the heart, which causes the failure of the cardiac contraction under the strain. It seems to us

that it can be conclusively demonstrated (see below) that if this insufficiency exists, it must be the result of *over*, not of *under*-work, to which cause of weakness we should add *malnutrition*. Dr. Putnam-Jacobi has not alluded to the possible effect of the excessive dilatation directly on the *muscular fibre itself*. How to demonstrate which, if either factor predominates, we don't know. It seems to us, however, that over-distention of muscle may have quite as much to do with the question as insufficiency of nerve-force. This, however, is pure conjecture.

With reference to the movements of the chest-wall after aspiration, we must again emphasize the fact that after paracentesis, *under the circumstances which we are now considering*, the "long-immobilized chest-wall don't and can't expand at all."

The reasons why it is immobile during pleurisy is, first, that the half-thorax is so distended by the effusion that it is an anatomical impossibility for it to expand any more; or, second, because pleuritic adhesions or thickening of the pleura exist, which resist the efforts of the muscles of inspiration. The immobility resulting from effort to suppress pain is, of course, out of the question in such cases as we are referring to. If we draw off this fluid and make a partial vacuum in the affected side of the thorax, the affected side, to expand, must obviously exert an expansive force strong enough to overcome the resisting atmospheric pressure. This, in all probability, it cannot do.

Dr. Putnam-Jacobi believes that the cause of sudden death under the circumstances in question is "exaggerated diastole of the heart," caused by this so-called "negative pressure." The writer has tried the following experiment: He has closed his glottis at the end of deep expiration, and then *inspired* with all his strength. Although he is an adult male of fair muscular development and in good health, he was not able to inflate his chest to any very appreciable extent. Moreover, the "negative pressure" applied to the heart was not great enough to paralyze the right side of his heart, or even to cause faintness. What reason have we then to suppose that the feeble inspiratory muscles of an exhausted patient could expand the chest-wall against a pressure so great as to cause not only faintness but instant death? There can be no "outward movement of the thorax" to direct "aspiratory force" with "abnormal intensity upon the heart." The thorax is being clamped and crushed in while the blood is being crammed into the right heart. This throws the question of the influence of thoracic expansion entirely out of the problem. The pressure of the atmosphere on the outside of the thorax, which tends to press everything on which it impinges—solid, liquid, or gas—into the artificially produced vacuum, is the only force to be considered. Compared to this, the force of inspiration is inconsiderable. If this was not so, suicide might be conveniently committed by simply closing the glottis and making a forced inspiration; spasmodic croup would be invariably fatal, etc.

Dr. Putnam-Jacobi is right, in some cases at least, when she says that the "cardiac ganglia must have been obliged to expend less force than usual to antagonize them" (i. e., the respiratory movements during chronic pleurisy. We laid too much stress on compensatory expansion of the unaffected side. We, moreover, agree perfectly with the assumption that "simple collapse of the lung, more or less deprived of air, does not offer a formidable obstruction (i. e., to the circulation through the lung) *any more than do unexpanded fetal lungs* (italics ours). Unfortunately for Dr. Putnam-Jacobi's theory, a stronger demon-

stration of the falsity of that theory than this same analogy could not have been chosen.

One peculiarity of the fetal circulation is that the most of the blood which enters the right ventricle is forced into the aorta through the ductus arteriosus. Its labors, moreover, are reduced by the passage of blood through the intra-auricular foramen, from the right into the left auricle. At the moment of birth, when the lungs expand, the mass of blood from the right heart ceases to pass through the ductus arteriosus and foramen ovalis, and enters the lungs. This physiological process proves beyond a doubt that collapse of the lungs *does* cause obstruction to pulmonary circulation, and therefore *does* increase the labor of the right side of the heart in pleurisy with effusion—unless, indeed, the individual affected happens to be a *fœtus*, or unless Nature, with unusual foresight, has not only left him a ductus arteriosus and a fenestra ovalis intact, but has also caused them to grow with the growth of his blood-vessels!

This obstruction must, it seems to us, infinitely outweigh the trifling ease which the heart may have from possible diminution of aspiratory force. We must then adhere to our original belief, that sudden death occurring during thoracentesis depends on over-distention of the right heart caused by atmospheric pressure, which forces the blood from the peripheral veins into the thoracic veins and right heart, to fill the partial vacuum produced by the operation.

Very truly yours,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH ST., Oct., 1879.

"PITHING" AND THE VASCULAR SYSTEM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In your issue of September 18th I endeavored to show that the doctrine taught in our text-books, as to the relations of the central nervous system to arterial contraction, is incorrect; that, after destruction of these centres, instead of being dilated, the arterial system is contracted and empty, as a result of which contraction the blood is transferred to the veins, which are proportionately distended. Dr. R. Van Santvoord comes to the rescue of the popular doctrine, in your issue of Oct. 4th; and in doing so, claims, among other things, that such alleged contraction of the chief arteries of the systemic system is impossible, on the ground that "contractile fibres are to be found in considerable numbers only in the smaller arteries," and "not in the large vessels at all."

It is well known that the smaller arteries are much more amply supplied with muscular contractile fibres than the aorta; and, as a consequence, that it is upon these that the influence of vaso-motor innervation is more actively displayed. We do not pretend that in general—and least of all, in the larger and older animals—the aorta would undergo a reduction in calibre sufficient of itself to empty the systemic arteries of blood; but if, in our former article, which was necessarily much condensed, we have not laid sufficient stress on the influence of the smaller arteries in emptying this system into the veins, we believe our general position is quite tenable, and that your correspondent goes too far in denying the presence of contractile fibres in the larger arteries. A reference to the authorities shows that even the aorta is fairly supplied with muscular fibres, and that "contraction of the arterial system," including its chief vessels, is a phrase frequently employed by physiological writers.

In Gray's Anatomy it is stated that as many as forty layers of non-striated muscular fibres have been counted in the wall of the aorta, interspersed with layers of fine elastic tissue. Todd and Bowman describe the same, and even furnish an illustration of the muscular fibres in the aorta of a horse, with their nuclei. Dr. George Harley, in his "Histological Demonstrations," points to the smooth muscular fibres in the wall of large arteries. Dr. Burdon-Sanderson, in the "Handbook," gives directions how the muscular fibres of "the large arteries" may be demonstrated; and in the same work he states that the increase or diminution of arterial pressure is in great part, if not entirely, dependent on contraction of the arterial system (p. 251). This phrase—"the arterial system"—cannot here be held to exclude the aorta and its chief branches. Drs. Todd and Bowman write: "The existence of two forces in the arterial wall, one of simple elastic reaction, the other of a slow muscular contraction, is shown in the well-known experiments of John Hunter," performed on the aorta of a horse (Path. Anat., p. 655). Dr. W. B. Carpenter states that "Valentine and others have succeeded in producing evident contractions of the aorta by irritation of the sympathetic nerve and of the roots of the cervical nerves of the spinal system." (Human Phys., p. 483.) Prof. Kuss, writing of "the arterial system," says the arteries "are not, as we should be likely to suppose, hollow cylinders, but rather hollow ribbons with flattened sides." When full of blood, their form is that of a cylindrical tube; but "in cases of severe hemorrhage they assume their natural ribbon-like form; they assume it also after death, by ejecting their contents into the capillaries and veins." When, in death, the arteries are opened and air admitted, he states, they lose their ribbon-like form and become cylindrical, "which form is due to the antagonism between the muscular and elastic tissue." This reference to elastic tissue, and his remarks generally, show that it is to the aorta and large vessels he here refers; since, as Prof. Kuss states, with few exceptions only, it is at the summit of the arterial cone (aorta) this tissue is found in the vascular system. (Lectures, pp. 152-3.)

Dr. Burdon-Sanderson, in treating of the circulation in asphyxia, alludes to the deprivation of oxygen in the circulating blood in determining "general contraction of the smaller arteries;" and adds, "the immediate consequence of this contraction is to fill the venous system." (Handbook, p. 333). Dr. Van Santvoord disputes the assertion that venous distention can result in this way; and gives it as his opinion that, "if the small arteries had contracted [as we asserted they did], the blood would have been dammed back in the great vessels and heart." Here he is at variance with Prof. Kuss and Dr. Burdon-Sanderson; and, as we merely adopted their view of how the mass of the blood was transferred to the veins, he must settle his objection with them and not with us.

We think we have shown conclusively that the aorta and its chief branches are supplied with muscular contractile fibres; that they are capable of contraction, and if so, of assisting in the process of expelling the blood from the systemic vessels. But even if the "ejecting of their contents into the capillaries and veins" depended on the action of the smaller arteries alone, our arguments would suffer nothing. The point we have sought to make is the general one, that the accepted view of the relation of the vaso-motor centres and nerves to the vascular system is untenable. It is authoritatively taught that

vascular contraction (of the smaller arteries if you like) is the result of vaso-motor excitation. But here in a pithed animal, when the vaso-motor centres are not excited but destroyed—in ordinary death too, when nerve-force is extinct—the arterial system is contracted to the full extent of which it is capable. That is to say, arterial contraction takes place quite independently of nerve-force, or rather in its entire absence. Again, it is authoritatively taught that arterial dilatation is the result of vaso-motor paralysis,—that the muscular fibres of the arteries being no longer urged to contract by nerve influence, yield to the pressure of blood, and dilate. Why, then, are they not dilated in the death of the body, instead of being, as the authorities agree, contracted so as to eject their contents into the veins? And why has it been claimed that death by pithing furnishes an exceptional state of the arteries compared with death from other causes; that here the arteries are dilated, when as a matter of fact the contrary condition prevails? We can only account for these and other anomalies by the exigency of the present vaso-motor theory, and by an oversight in not testing it with the facts, with which we claim it is perpetually out of joint.

We referred in our former article to the effects of glass or two of brandy in causing flushing, when, as stimulant to the vaso-motor nerves, it ought (on the theory) to have produced vascular contraction and aleness. We cannot see that Dr. S. has met our point, and we think he misapprehended our meaning in not perceiving the full scope of our theory. We claim that nerves and muscles are antagonists: that while the vaso-motor nerves *dilate* the arteries, the contractile power of the muscular tissue of their walls is constantly exercised to reduce their calibre. A glass of brandy in a dose of nitrite of amyl, gives a stimulus to dilating nerve-power and arterial expansion with flushing results. A dose of aconite, veratrum viride, ergot, etc., paralyzes vaso-motor (dilating) nerve-force, and the contractile power inherent in the muscular fibres of the arterial tubes, no longer restrained, asserts itself, contracting these vessels, moderating congestion, or arresting hemorrhage, etc. On the accepted vaso-motor theory we are required to believe, as Dr. Meryon asserts (*Rational Therap.*, p. 52), that aconite *stimulates* the vaso-motor nerves, "and by so doing diminishes the calibre of the arterioles." Is this a reasonable view of the action of so profound an analyzer as aconite?

Take one example more. Dr. Burdon-Sanderson writes: "One of the effects of diminishing the proportion of oxygen in the circulating blood is to excite the vaso-motor centre, and thus determine contraction of the small arteries" (*Handbook*, p. 333). Now, is the condition of asphyxia thus produced really a process of stimulation to any part of the nervous system? Is such a condition favorable for the development of nerve-force, in excess of its normal reduction, to be thus expended in inducing contraction of arteries, which contract quite effectually (as we have seen) in the entire absence of nerve-power (e. g.) in death of the body. We have the boldness to claim that this asphyxiating process is a paralyzing one; that the vaso-motor centre is not excited, but depressed; and that what really occurs is paralysis of the (dilating) vaso-motor nerves and unrestrained exercise of the contractile power of the arterial muscle, producing the vascular contraction referred to. In his state of asphyxia, in poisoning by aconite, in the collapse of cholera, and in death itself, we have uniformly contraction of the arteries under the control of the vaso-motor nerves. On one theory we are ex-

pected to find excitation of these nerves; on the other, paralysis in these several states. Which condition is it most natural and reasonable to expect to find?

Yours cordially,

THOMAS W. POOLE, M.D.

LINDSAY, ONT., CANADA, October 8, 1879.

THE "SUCCESSFUL PRACTITIONER" OF PINE RIDGE REVIEWED.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The Code of Medical Ethics is an acknowledged guide to physicians in their intercourse with each other, and with their patients and patrons. Experience has proven that where its teachings are honestly observed the result is alike beneficial to themselves and to their patients, but it is an observance of the *spirit* of the Code, as well as the letter, that produces these salutary results. I have seen, during a somewhat extensive and varied practice of medicine of many years, physicians who were confessedly great sticklers for the Code, but almost invariably, by word or deed, violated the *spirit* of that paper in every particular. To an honest, well-educated physician the Code is of no very great importance. He does *right* in all his dealings with his patients and patrons, and in all his relations with other physicians, and the Code teaches neither more nor less than this.

I am led to these reflections by reading an article that appeared in the *MEDICAL RECORD* of August the 30th, and continued in the number for September 13th, entitled "The Experiences of a Successful Practitioner."

This successful practitioner would have the readers of his article believe that he is a strict observer of the Code; and to this, and to his extreme kindness to his neighboring physicians, but more especially to the younger members of the profession, he attributes his success, and as an illustration of his honesty and fair dealing cites the case of Dr. White.

Now let us consider for a moment, how this "successful practitioner" observed the *spirit* of the Code in this very case he gives as a sample of his honesty. He says that one Sunday afternoon he was driving past Smith's, and was asked by Mrs. Smith to look at her son Harry. Although in a great hurry, having thirty (!) patients to visit before supper, he stepped in. He at once told the mother that her child was *very sick*! that it had evidently been left too long without proper treatment! Was this very first act in the drama *honest*? Was he warranted in giving the anxious mother this opinion, whether the patient was under the care of another physician or not, without a more careful examination of the case? He knew, or ought to have known upon what pathological conditions he based his opinion before giving it. In cases of "simple intestinal irritation," as this one turned out to be, there is usually no danger, and thus no necessity for grave looks or knowing glances; neither was there any cause for exciting the parents to fearful apprehensions as to the safety of their child. But having learned that Dr. White was treating the patient, he partially subsided, and advised them to send at once for Dr. White! Still, notwithstanding his great hurry and his thirty patients to visit before supper, he *took time* to inform them that he was a friend (!) of Dr. White, that the doctor was a good fellow—a very young man with little experience, but was willing to learn!—brought up a carpenter, and had studied medicine *two years*—when everybody knows that no medical college in this country con-

fers the degree of doctor of medicine until the applicant has studied medicine with some regular physician *three* full years. What more could this successful practitioner—this friend of Dr. White, have done to weaken the confidence of these people in the attending physician—and what more could the most consummate quack have done to secure the case? Admitting, for the sake of argument, that the "child was *very sick*," as he says—then this was a case of emergency, and in such cases, when a physician is called in to see a patient under the care of another physician, the Code allows him to prescribe such medicines as the emergency of the case requires—why, then, did not this friend of Dr. White, this strict observer of the Code! then and there give the child a dose of subnitrate of bismuth and oxalate of cerium, or his "chalk mixture well sweetened," to allay the vomiting, and then pass on and inform Dr. White, if convenient, of what he had done, without making so much ado about nothing? But it seems that this successful practitioner knew well what he was about. He had another object in view. He had aroused the fears of the parents for the safety of their child, and he had fully informed them of the opportunities and qualifications of Dr. White, and well he knew that these anxious parents would not allow this "very young doctor" to practise upon their Harry, and that they would not only call this "friend of Dr. White" in counsel, but that after a great display of his wisdom and his instruments (unnecessary in this case) he would get the patient to treat in the future. Well, it seems to have turned out just as he anticipated, and as every physician, without being a prophet, knew it would—for that very evening he was summoned by the father of the child to meet Dr. White in consultation.

Now, this honorable physician had, that very afternoon, seen the patient, and had given his opinion (although erroneous) in the case; and where was the necessity for taking along all his instruments, unless for display, and for the purpose of impressing upon the minds of the parents his superior abilities, and the ignorance of Dr. White? Every physician fully appreciates the necessity for the employment of all the instruments mentioned, in certain and very obscure cases; but who among us would deem it necessary to use an ophthalmoscope, a laryngoscope, an ear speculum, a stethoscope, a urinometer, etc., to diagnose a case of "simple intestinal irritation" that was cured in a few days by "chalk mixture well sweetened"? And Harry, too, must have been one of the best of boys to have submitted to such an examination, for every physician knows, who has had experience in the use of the laryngoscope, that it is very difficult, indeed, to employ it in the case of children, and never used unless there are urgent indications for its employment. Few children will allow an ear speculum to be introduced into their ears, even if it was suspected that there was "slight opacity of the tympanum due to thickening around the malleus, and slight oedema over the site of the tensor tympani muscle"! which condition would not be anticipated in "simple intestinal irritation." No wonder, then, that after this long and unnecessary examination of the patient, and after such a display of instruments and knowledge, that Dr. White's "position in that family was a little shaky;" and, although this friend had done his best, in accordance with the Code, to hold up his hands! the result was anything but pleasant to the aforesaid Dr. White.

The inquiry might here arise, does this "observer of the Code" make use of all these instruments with

each of his own patients? There certainly would be as much necessity for their employment as in the case of Harry, for medical aid would hardly be called to a case more simple or less dangerous than "simple intestinal irritation." It may be said, in answer to this inquiry, that he employed them at his *first* visit for the purpose of making out a *correct* diagnosis; but, if necessary at his first visit, they were certainly equally necessary at each subsequent visit, for he would naturally be anxious to know how those *fine points* he discovered in the case of Harry were getting along—such as "the choked disc," the thickening around the malleus, the tympanum, and that oedema over the site of the tensor tympani muscle; also that "slight paralysis" of the right vocal cord would need be seen to, as well as the cephalic temperature, which was increased, in Harry's case, $\frac{1}{100}$ of a degree! Then that umbilical ligament! should not be overlooked, to see if it had become abbreviated or elongated since his last visit. Then, again, those "slightly asphyxiated ascares vermiculares" should not be neglected; but, above all, as furnishing the key to the whole mystery, that "slightly elongated prepuce" needed close watching, especially where the case was of so much importance as that of "simple intestinal irritation".

To have employed all these instruments in each of his own cases, it would take—let me see—we will add the time absolutely required for the use of each instrument, and just forty-two minutes are consumed with each patient—this time multiplied by thirty, the number of patients he was obliged to visit that afternoon before supper, and the conclusion is he must have had a very late supper! The whole story is a farce; and, whether written for the purpose of really showing his kindness to Dr. White, or whether to illustrate how miserably mean a physician can be to a young practitioner, under the guise of friendship and the letter of the Code, is difficult to determine. I mistrust the latter. However, such an article ought not to be allowed to go to the medical world without criticism, as it might, possibly, mislead some unthinking physician into a practice of the same tactics.

_____, M.D.

PARK CITY, UTAH TERRITORY, Oct. 4, 1879.

THE RAW-HIDE JACKET FOR SPINAL DISEASE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The discussion on the relative merits of the various mechanical supports for patients with Pott's disease, lately appearing in your journal and emphasized by your editorial review of the subject, leads me to call the attention of your readers to an apparatus not yet mentioned. It is, no doubt, known to many, but I believe not to the majority of the profession. I refer to the raw-hide jacket made by Mr. S. A. Darrach of this city. Horse-hide, prepared so that it will neither wrinkle nor absorb moisture, is perforated and stretched over a plaster-cast of the patient's trunk. The mould for this cast is not made by a plaster-jacket as in the paper brace, but extension is made while the patient lies in a trough filled with plaster, and a thick layer of the same substance is placed over the abdomen and chest, after a piece of twine has been placed on the sides of the patient. After the plaster has set, the anterior segment is removed by cutting the mould by this twine from the axilla to pelvis.

Any one who has applied the plaster bandage while the patient is suspended, will realize how much

discomfort and fatigue is saved by this method, and how much more accurate must be the fit. It is almost impossible to prevent a patient while suspended from drawing up a shoulder or hip, the tired and strained muscles involuntarily seeking some relief. This produces a slight wrinkling of the inside of the jacket, and is a frequent source of intolerance. This nearly inevitable wrinkling is noticed by Dr. Vance, who "smoothes them off" before making his cast.

The raw-hide jacket seems to me to have nearly every advantage possessed by the plaster-jacket or steel brace, with several in addition. My experience of these supports, though limited to seven cases, has been carefully considered. In disease of the upper portion of the spine, a head-rest is attached to the hide jackets. In disease of lumbar vertebrae, I think a jointed steel support down the leg to the shoe adds much to its efficacy. Crutches are attached to all of these jackets. To sum up briefly the advantages and disadvantages of this means of support over the plaster jacket:

The latter are: 1. It cannot be applied by the physician, nor even by an ordinary instrument-maker. 2. The expense, \$40 to \$50.

The advantages are: 1. Durability. They can be worn until outgrown. 2. Lightness. 3. Ventilation through perforations. 4. Possibility of removal for bathing or examinations. 5. Its perfect smoothness, which makes abrasions impossible.

In conclusion, let me hope that the space you have given this subject will be the means of calling such attention to it that its symptoms may be more carefully studied and earlier recognized; that fewer erroneous diagnoses of rheumatism or muscular weakness be made, only to be corrected by the deformity which makes the true nature of the disease but too evident. It is not too much to believe that soon the vast army of hunchbacks walking our streets will receive few recruits—I may say no accessions. Of course there will be some subjects of this disease who, from constitutional taint, cannot recover; but those with enough vitality to convert the breaking-down process into a reparative one, after several vertebrae have been affected, certainly, with proper treatment, could early in the disease be cured without deformity. The physical suffering saved will be enormous, but who can estimate the mental distress prevented?

EMMA WARD EDWARDS, M.D.

NEWARK, N. J., Oct. 4, 1879.

New Instruments.

EAR AND THROAT CASE.

THIS case is intended for physicians in general practice who are constantly required to examine the ears and throats of patients, and do not need to equip themselves with every special ear and throat instrument in use.

It is generally found difficult to keep such instruments together so as to be available when wanted, and therefore, this pocket case, which contains every requisite for aural and laryngoscopic examinations, and which can be carried in the pocket, is recommended. It contains a concave reflecting mirror, with head-band, suited very well for either otoscopic or laryngoscopic examinations, and it should always be worn on the head when used, as both hands are thus left at liberty for manipulations. Ear specula, tongue-de-

pressor, and a small mirror for pharyngeal or laryngeal inspection, are contained in this case. The forceps are, if used with ordinary care, useful in dressing the ear or in the removal of foreign bodies. Two vulcanite cotton-wool carriers are provided, one for the ear and one for the throat. When one end of the carrier is wrapped tightly with absorbent cotton-wool, the end portion of the wool projecting in a brush-like form, it may be used in wiping out the auditory meatus so that an examination of the drum-head or tympanic cavity can be made without syringing the ear with water; and medicinal substances can also be carried by the brush to either ear or throat.

A compartment is provided for absorbent wool, and another for probes of silver, etc.



Mr. Ford, of the establishment of the Messrs. Caswell, Hazard & Co., has succeeded in arranging these instruments in a case of very small proportions, and although it is not intended to take the place of the specialist's armamentarium, it will serve a useful purpose, if, from its convenient size and inexpensiveness, it should be generally adopted, and thus encourage more frequent examinations of regions not infrequently affected by disease.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Oct. 12th to 18th, 1879.

HORTON, S. W., Major and Surgeon. To proceed from Omaha, Neb., to Rawlins, Wyo. T., and report in person to the Dept. Comd'r. S. O. 91, Dept. of the Platte, Oct. 11, 1879.

GIBSON, J. R., Major and Surgeon. At expiration of his present leave of absence, to report in person to the Comd'g General Dept. of the East for assignment to duty. S. O. 235, A. G. O., Oct. 13, 1879.

BROWN, H. E., Capt. and Asst. Surgeon. Leave of absence extended one month. S. O. 111, Div. of the Missouri, Oct. 13, 1879.

TAYLOR, M. K., Capt. and Asst. Surgeon. To accompany 2d detachment of the 4th Cavalry from Ft. Clark to Ft. Hays, Kans., and return to proper station upon completion of this duty. S. O. 211, C. S., Dept. of Texas.

VICKERY, R. S., Capt. and Asst. Surgeon. Assigned to duty at Fort D. A. Russell, Wyo. T. S. O. 92, Dept. of the Platte, Oct. 11, 1879.

MIDDLETON, P., Capt. and Asst. Surgeon. Assigned to temporary duty as Post Surgeon at the Post of San Antonio, Texas. S. O. 211, Dept. of Texas, Oct. 7, 1879.

KIMBALL, J. P., Capt. and Asst. Surgeon. Confirms order of Oct. 1, 1879, directing him to proceed to Rawlins, Wyo. T., for duty in the field. S. O. 91, C. S., Dept. of the Platte.

DE WITT, C., Capt. and Asst. Surgeon. Confirms order of Oct. 1, 1879, directing him to proceed to Rawlins, Wyo. T., for duty in the field. S. O. 91, C. S., Dept. of the Platte.

BYRNE, CHAS. B., Capt. and Assist. Surgeon. Relieved from duty in Dept. of Texas, to proceed to New York City, and on arrival report by letter to the Surgeon General. S. O. 235, C. S., A. G. O.

TURNILL, H. S., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Columbus, N. Y. H., and assigned to duty at Madison Barracks, Sackett's Harbor, N. Y. S. O. 182, Dept. of the East, Oct. 16, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. Relieved from operation of par. 7, S. O. 210, C. S., from these headquarters. S. O. 211, C. S., Dept. of Texas.

KILBOURNE, H. S., 1st Lieut. and Asst. Surgeon. To report in person to Comd'g General Dept. of the East for assignment to duty. S. O. 235, C. S., A. G. O.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 18, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 11, 1879...	0	14	36	3	21	33	0	0
Oct. 18, 1879...	0	10	31	3	48	31	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 15th to October 21st, inclusive, was 43, and the number of deaths that occurred was 23. The total number of cases for this year to October 22d is 1,522, and the total number of deaths, 540.

WEATHER STATISTICS.—THE EXTRAORDINARY HEAT OF THE PRESENT MONTH.—A close examination of the weather records, kept with great care at the Pennsylvania Hospital, Philadelphia (which extend back to the year 1825), show that within that time there has been no approach to the heat of the present month during any previous October. Since 1825 the warmest Octobers occurred during the years 1835 and 1861, but they bore no comparison to the present month. In October, 1835, the mean of the thermometer was 60 degrees, the maximum 78 degrees, and the minimum 42 degrees; the mercury rarely marking over 70 degrees. The mean of October, 1861, was 60 degrees, the maximum 85 degrees, and the minimum 38 degrees; but the mercury only rose to 80 degrees or over, three days in the entire month.

So far (18th) during the present month the thermometer has stood over 80 degrees on 11 different days, as follows: 1st, 88 degrees; 2d, 84 degrees; 3d, 87 degrees; 5th, 80 degrees; 6th, 80 degrees; 9th, 80 degrees; 10th, 80 degrees; 13th, 80 degrees; 15th, 83 degrees; 16th, 85 degrees; 17th, 83 degrees. The mercury has been over 70 degrees every day in the month so far except on the 5th; it has never at any time fallen lower than 55 degrees. Since 1825 the mercury has never risen higher than 87 degrees in October, except in the present month, and that was for one day in the month only. During October of last year the thermometer was 80 degrees and over on four different days, the average maximum being 66.58 degrees, and the average minimum 50.29 degrees.

Within the past 54 years prior to the present, the mercury has only marked 80 degrees or over during October of those years, 11 times, and then only from one to three days at a time; and it is, therefore, apparent that the present is the warmest October for at least 54 years.

DR. T. JULIUS LEMOYNE, the Father of Cremation in this country, is dead. Dr. Lemoine was a retired physician, who had amassed a fortune, and who has during the past ten years been experimenting in cremation. He was of French descent, but born in this country in 1797. He graduated at Washington University in 1815, and at the University Medical College, Philadelphia, in 1820. Half a century ago he was Abolition candidate for Governor of Pennsylvania, and later, was candidate for Vice-President on the ticket with Gerrit Smith. He has lived at Washington, Pa., and it is there that his cremation furnace was built. This furnace was the result of much study, and was proved to be a success when three years ago Baron de Palm was incinerated in it. It has now satisfactorily consumed the remains of its originator.

Dr. Lemoine was a large man, of fine presence, with a very long, silvery beard. He retained his mental faculties and his enthusiasm over cremation up to the last.

BOOKS RECEIVED.

DISEASES OF WOMEN. By LAWSON TAIT, F.R.C.S. etc. Wood's Medical Library. New York: W. Wood & Co. 1879.

SEEING AND THINKING. By the late WILLIAM KINGDON CLIFFORD, F.R.S. London: Macmillan & Co. 1879.

FIRST BOOK OF QUALITATIVE CHEMISTRY. By ALBERT B. PRESCOTT. New York: D. Van Nostrand. 1879.

A TREATISE ON VOCAL PHYSIOLOGY AND HYGIENE. By GORDON HOLMES, L.R.C.P. Edinburgh. London: J. & A. Churchill. 1879.

CLINICAL LECTURES ON DISEASES OF URINARY ORGANS, delivered at University College Hospital. By SIR HENRY THOMPSON. Fifth edition. London: J. & A. Churchill. Philadelphia: Lindsay & Blakiston. 1879.

LECTURES ON THE DISEASES OF WOMEN. By CHARLES WEST, M.D., F.R.C.P., with additions by J. MATHEW DUNCAN, M.D., LL.D., F.R.S.E. London: J. & A. Churchill. Philadelphia: Lindsay & Blakiston. 1879.

TRANSACTIONS OF THE NEW YORK OBSTETRICAL SOCIETY for the years 1876, 1877, 1878. Vol. I. New York. 1879.

Original Lectures.

TYPHOID FEVER IN INFANCY AND CHILDHOOD.

A CLINICAL LECTURE DELIVERED IN BELLEVUE HOSPITAL,

By A. JACOBI, M.D.,

PROFESSOR OF DISEASES OF CHILDREN IN THE COLLEGE OF PHYSICIANS AND SURGEONS IN NEW YORK CITY.

(Reported for THE MEDICAL RECORD.)

PART II.

COMPLICATIONS OF TYPHOID FEVER.

GENTLEMEN:—Let us next study something of the complications of typhoid fever. Now and then you find *pneumonia* with it in the adult, and it is then chiefly hypostatic in character. In children it is more frequently *not* hypostatic in character. For most children sick with typhoid fever are not in bed to such an extent as are adults. Even, as you know, adults sick with typhoid fever will sometimes walk about during the entire course of the disease. Children may have bronchial catarrh to a certain extent, the same as adults. In the adult the bronchial catarrh does not generally lead into pneumonia. In children the case is different. In a large majority of cases, pneumonia occurring in children is of the lobular variety, and the immediate result of a bronchial catarrh; in other words, there is a *broncho-pneumonia*. The small branches of a bronchus become obstructed by viscid mucus, especially when the respiratory movements are not active, collapse of the lung sets in, hyperæmia follows, and lobular pneumonia is developed. Thus it is why pneumonia is chiefly found toward the latter stage of typhoid fever in the adult, while it is not infrequently developed in the beginning or at an earlier period of the fever in children. While typhoid fever may be a very mild affair in childhood, this complication is frequently very severe. It is always well, therefore, to be upon the lookout for its occurrence, and never to be satisfied with a single examination. I came near being satisfied in this case here with the diagnosis of broncho-pneumonia, but a second examination prevented me from falling into that error.

Another complication which may be present is *meningeal hyperæmia*. As soon as the functions of the muscles become reduced, especially those of the heart, which is particularly apt to occur in cases in which the fever is high, and consecutive granular degeneration takes place, you must expect less propelling power on the part of the heart, and then meningeal hyperæmia is not infrequent in the brain and in the spinal cord. Now and then such children have a little obtuseness of hearing and slight twitchings. The spinal symptoms, as a rule, are not dangerous. The brain symptoms are dangerous, and, as a rule, they will be developed with the occurrence of high temperature. It is, therefore, of the utmost importance to reduce the high temperature as speedily as possible.

The complication with *diarrhœa* is not a frequent one. It is seen now and then in bad cases, but in the majority of cases it will be entirely absent. When it is present you have not always reason to suppose that there is ulceration of Peyer's patches.

For in the beginning there is extensive hyperæmia,

with over-secretion only; in the later weeks diarrhœa means ulceration. On the other hand, however, the presence of intestinal ulcerations does not necessarily bring on diarrhœa in either the adult or the young, as might be supposed by those who study typhoid fever, as it appears with us, through European textbooks. In the Mount Sinai Hospital I lost a man from perforation of a typhoid ulceration, after a protracted illness, with never so much as a single attack of diarrhœa; and in Ward 28, Bellevue Hospital, a girl of ten years from the same cause, without a single loose passage during the whole course of the disease.

PROGNOSIS.

As a rule, in most cases of typhoid fever occurring in children, the disease runs a mild course. But few cases terminate fatally. When they do terminate fatally it is not usually the typhoid fever which kills, but the complication, and, therefore, it requires an attentive physician to pronounce the prognosis in such cases. In most cases it is the broncho-pneumonia, or the height of the fever, if the fever be high, which is dangerous. Pneumonia is always to be looked for. The large percentage of mortality which is reported in cases of typhoid fever treated in infant asylums from year to year may, in view of what I have said, surprise you. For instance, the mortality in typhoid fever in the Paris Hospital is large, and in every hospital it is always so. In private practice probably your mortality will not be more than one in ten or twenty, and in many epidemics very much less. But remember that there are cases in which all the symptoms of adult typhoid fever may be developed. In such the prognosis ought to be guarded indeed.

TREATMENT.

Typhoid fever in childhood must be considered as a very manageable disease, if taken in time. How is it to be taken? Remember that the danger in a disease which does not produce a great deal of anatomical change is found in its long duration and in the height of the fever. A low fever which lasts long will finally become dangerous by producing disintegration of tissue, if by nothing else, besides by interfering with digestion. But high fever may prove dangerous in a very short time. When the temperature rises to 105° or 106° F. the baby may pass into a convulsion, and that convulsion may be a fatal one. In late years the high temperature has been extensively treated by the use of *cold water* in the form of *cold bathing, sponging, and the cold pack*. The treatment has commonly been to place the patient in a tepid-bath, which is reduced to a lower temperature by the gradual addition of ice or cold water, until the point desired is reached. The temperature of the body is reduced in this manner. In a few hours, sometimes within half an hour, the temperature may be just as high as it was before the bath was given. Now and then, the effect will last for four, five, or six hours. In order that a child may be safely bathed with cold water in this way it must have vitality enough to establish reaction; that is, as soon as the baby is wrapped up the surface must begin to become warm again. If it does not there is great danger, for you must recollect that the diminution of the temperature of the body takes place in large part from the skin. If the skin remains cool and the blood-vessels remain contracted, a very hot blood certainly cannot cool. In such cases where reaction was not readily established, I have introduced the thermometer into the rectum and found a high temperature. That condi-

tion of things is very dangerous indeed. Therefore, after having the child in a cold bath, if reaction was not at once established, I have sometimes reduced the temperature by plunging it into a hot bath, which has the effect of restoring the circulation on the surface of the body, and thus enabling the blood to throw off a part of its heat. In this manner I have seen a temperature of 106° F. in the rectum reduced within a few minutes to 102° F., or even lower. You will do well to be especially careful when the feet remain cold after a cold bath. When such is the case I consider the case none that will bear, or thrive on, the cold-water treatment; and I believe that in such cases you will do better to give up the cold bath entirely. As a rule, in such cases, washing the surface with cold water, down as far as the thighs, is sufficient.

Now and then the cold pack over the chest and the abdomen may be used with good results. In fact, it is preferable where reaction will but partly set in. Where, as in the above cases, the feet are apt not to recover their warmth speedily, cold packing of the trunk only is beneficial, not only in infectious, but also in inflammatory fevers. In the pack the child is to be retained until both pack and surface become slightly warm—provided this occurs soon; for, when a long time is required before reaction sets in—say twenty minutes or more—the pack and cold-water treatment are dangerous. When the body warms up within eight or ten minutes, the pack ought to be changed at once, and not remain until the body is quite warm again. In all cases, however, much depends on two things—firstly, on the general condition of the child, and secondly, on the intelligent watching of the little patient by both physician and nurse. Here, as everywhere, the Latin proverb holds good, that when two do the same thing, it is not always the same thing.

We also know that *quinine* reduces temperature, and therefore it is given when the temperature is high. Here again you are to remember, that this remedy is always to be used with a little care. Small doses of quinine will not reduce the temperature, and if the baby requires eight, ten, or fifteen grains daily, it should be given in one or two doses. If the temperature is very high, from twelve to sixteen grains may be given at a dose. But you have to be careful with reference to the size of the dose, for the quinine may not be digested at all. In general, in fevers, quinine is not readily digested, or readily dissolved in the stomach, so that it can be assimilated. Thus, when quinine is given, it should always be administered in solution, and the *muriate* is preferable to the sulphate, because the sulphate requires a great deal of water to dissolve it, while the muriate requires only a proportionately small quantity of water. If muriatic acid is added to the sulphate of quinine, of course it is made more soluble, but it is less likely to be well tolerated by the stomach. The taste of quinine is something which is disagreeable. One of the preparations which is most easily taken is the *neutral tannate of quinine*. It is not very soluble in water outside of the stomach, but it appears to have a very good effect. It contains about forty per cent. of the quinine contained in the sulphate, and therefore must be given in proportionately large doses; one grain of the sulphate being equal to two and a half of the neutral tannate. As this preparation was originally made, according to the old formula, it is almost absolutely insoluble, and therefore should not be given at all. Whatever preparation you may use, do not forget one rule which is set down as a positive fact, principally by Liebermeister. Now and

then it will happen that you cannot reduce the temperature at all by administering frequent doses during the day, say ten-grain doses to an adult three, four, five times a day, whereas by the administration of the whole quantity in one or two doses satisfactory results will be obtained. This is nothing absolutely new, for I said the same thing sixteen or eighteen years ago, and also published it, and at that time I was tabooed for it. I have, however, had the satisfaction since of knowing that those who then disliked my so-called large doses of quinine have outdone me by far, and I have occasionally been startled at the size of the doses which my colleagues and my former pupils have not hesitated to employ.

Salicylic acid and the *salicylate of soda* are remedies which are used to reduce high temperature. I have already taken occasion to speak of these remedies some time ago, and in the treatment of the high temperature of typhoid fever they may do a great deal of good. I do not hesitate to recommend them in spite of what has been said with reference to salicylic acid producing a tendency to epistaxis and hemorrhages in general. It is true that now and then hemorrhages occur in cases in which there exists a predisposition, but we must not believe that every hemorrhage which takes place is due to the salicylic acid, for we know that in typhoid fever hemorrhages occur from the disease itself.

When you succeed in reducing the temperature in typhoid fever the game is half won. Therefore remember that the principal object is to diminish the body heat and make the patient comfortable. You cannot reduce the duration of the disease, it is true, but there is a vast difference between a typhoid fever which runs three or four weeks with a temperature of 104° or 105° F. and one which runs three weeks with a temperature of 101° or 102° F. A great many cases will not die of the disease, but of complications a number will die after convalescence has been established, and the more protracted the convalescence is, the more likely complications are to occur, whatever these complications may be. Salicylate of soda may be given to a child in doses of three or six grains, three, four, five times in the course of twenty-four hours, and it will occasionally reduce a high temperature which is not affected by quinine. I will here repeat what I have already said in another place, that when quinine does nothing, that when salicylic acid does nothing, the combination of the two remedies will sometimes give surprising results. These results I have verified both in private and in hospital practice.

Digitalis has been recommended. Now and then there may be an indication for its use in small doses, for the purpose of invigorating the heart's action.

Veratrum viride has been recommended for the same purpose, but I advise strongly against it, because its action is sedative, and sometimes it produces very disagreeable irritant effects upon the mucous membrane of the stomach and intestines, an effect which certainly you wish to avoid in no disease more than in typhoid fever.

Look after the patient's general condition. Now and then, even when there is not much fever, you may use *stimulants*, and if stimulants are indicated anywhere, it is in infectious diseases. There a baby of almost any age, from one year and over, may take an ounce of brandy or whiskey within twenty-four hours. It should never be given alone, for its action upon the physiological function of the stomach is disagreeable; therefore it should always be given in milk, or water, or barley-water, etc. In occasional cases, stronger stimulants, or a combination of stimulants, will be required.

Camphor is an excellent stimulant, and to a child two, three, or four years of age, you may give from two to ten grains of camphor every day for a number of days in succession. I believe that camphor has fallen into disrepute as a stimulant, because the doses given have not been sufficiently large. It has been recommended in pneumonia, and used to considerable extent; but is often replaced by carbonate of ammonia and other stimulants. Carbonate of ammonia is certainly a good stimulant, but one chief objection to it is that its effect is very temporary, and in order to secure its continued effect the doses must be repeated very frequently, whereas the effect produced by camphor is something more permanent. I have seen ten-grain doses of camphor given to a child less than two years old in collapse of pneumonia, and the child revived, and is yet alive. It requires, however, a prudent and courageous practitioner to give such doses in the face of the prejudice against large doses of the drug, and indeed, such large doses are only very seldom required.

Musk is another powerful stimulant, and perhaps the most powerful of all. It also has fallen into disrepute as a stimulant, perhaps, because the doses recommended have been too small. The remedy is quite expensive, and I have no doubt that because of its price the doses recommended have been smaller than they should be. To a child two years old, who is in collapse, requiring the use of a strong stimulant, never give less than one or two grains of musk, and repeat the dose every hour. You may give musk in such doses as will reach twenty-five grains in the course of twenty-four hours, if an efficient stimulant is required. In some cases the results obtained will be admirable when nothing else seems to produce any effect whatever. At the same time do not forget that when you wish to obtain a speedy effect you must not rely upon the stomach. Do not forget that the stomach of a person in such collapse as requires the use of strong stimulants does not digest, for the stomach is feeble, like the other organs, and absorption does not take place. In such cases you must resort to *subcutaneous injections* of ether, or brandy, or alcohol, or camphor, dissolved either in ether, or in oil, or brandy. But you must be sure when camphor is dissolved in oil, or ether, or brandy, that the solution is not too strong, for if it is, the ether or brandy will be absorbed within a very short time, and the camphor left remaining in the subcutaneous tissue. My first experience of that kind I had in connection with the subcutaneous injection of quinine. I once succeeded in making a solution so strong that three drops contained one grain of quinine, and I soon after used it for purposes of subcutaneous injection, administering ten grains at each dose. These doses were repeated some thirteen or fifteen times. The patient died. I made a post-mortem examination, cut down upon the place where I had injected the quinine, and there it was, every particle of it. The water had been absorbed at once, and the result was that the quinine remained intact in the subcutaneous tissue. The same thing may occur with camphor, and you are not to forget that, if too strong a solution is used, the remedy may remain unabsorbed beneath the skin.

HEMORRHAGE FROM THE BOWELS.

What is to be done when hemorrhage occurs from ulcerations in the bowels, rare though it may be? I have seen such a case, and I treated it by the use of *opium* and *alum*. As far as opium is concerned, it seems to be contraindicated in infectious diseases because of its sedative effect. In the last century there were some

authors who said that opium was a sedative, while others said that it was not a sedative at all, but an excitant. Then there was a war of opinion which lasted for about twenty years, and still the question was not entirely settled. From what is now known of the drug, I think the question concerning its effect can be readily answered. Opium administered in small doses is an excitant, but when given in large doses its effect is sedative. There are very many cases in which the effect produced by opium given in small doses is plainly a stimulant. For example: in a case of pneumonia and endocarditis which occurred in my service at the Mount Sinai Hospital, I wished to obtain the stimulating and the constipating effect at the same time. For the patient, an adult, had a great deal of diarrhoea at the same time, and I gave him one-fifteenth of a grain of opium every hour with a very beneficial result. The accumulation of the opium after a time arrested the diarrhoeal discharge, and, together with camphor and brandy, it acted as a stimulant, and the patient made a good rally.

Alum does good in cases of hemorrhage from the bowels, and is better than tannin, because it interferes less with digestion.

Hemorrhage will now and then be found in connection with a case of typhoid that has continued for a long time. I have seen one such case. It was in a boy six years of age. In that case I resorted to applications of ice. An ice-bag was kept constantly applied over the ileocaecal valve, and at the same time a moderate amount of opium with a great deal of alum was given.

These are the principal points of importance in connection with the typhoid fever of infants and children. It was not my object to enter upon the study of the subject of typhoid fever in general, for that belongs within the domain of another clinic.

In regard to food, the first indication is this, that the digestive organs should not be overloaded, and that the food should be fluid. The second, that the patient should have enough nutriment. Both of these indications are valid for both the disease itself and convalescence. The intelligent practitioner will know how to deal with the individual case.

THE HISTORY OF AUSCULTATION.

AN ABSTRACT OF A LECTURE DELIVERED IN THE PRELIMINARY COURSE, 1879.

By JAMES T. WHITTAKER, M.A., M.D.,

PROF. THEORY AND PRACTICE OF MEDICINE IN THE MEDICAL COLLEGE OF OHIO.

GENTLEMEN:—The purpose of your coming here is, more especially, the education of the special senses for the detection of disease. Ambrose Paré wrote once a work entitled "*Table méthodique pour connoître les maladies par les cinq sens*" (a Systematic Table for the Recognition of Disease by the Five Senses). In his day (1560) the use of one of these senses for this purpose, that of hearing, was little known. The physician heard, of course, the history of the patient, and thus of the disease, indirectly, but from an unskilled witness. With the discovery of auscultation the disease itself spoke directly to the ear of the educated physician. How much was thus added to the sum of our knowledge becomes apparent from a single statement. Before the discovery of auscultation, all diseases of the lungs (phthises, pleurisies, cancers, abscesses, etc.) were considered, in life, at least, as varieties of pneumonia. Since auscultation, we are able to dif-

erentiate varieties of pneumonia itself. The evidence offered by auscultation, in diseases of the chest, outranks in value that furnished by every other means of investigation. In many cases a diagnosis without it is absolutely impossible. In all cases it is the last and most effectual appeal.

But, before we engage upon the practical study of auscultation, we must say something of its history. A book, unless full of original work, which contains no reference to the past, is unworthy of preservation, and a course of lectures without some recital of the history of the subject is unfinished, and can make no permanent impression. A great French physician, Littré, once said: "It is the history of medicine which makes it a science instead of a trade." In fact, a subject without a history is as tame as a river without traditions.

The discovery of auscultation is an exception in the history of medical discoveries. Of most of them, it may be said, that were developed by evolution. By line upon line they are written. The final revelation to decipher and illumine the entire text is a natural and necessary sequence, and the period of its disclosure is a mere question of time. But it was different with auscultation. It came all at once. There was nothing known of it for thousands of years, when with the advent of one man it came. Auscultation was the creation of Laënnec. The value of it has been disputed, but never its authorship. Percussion, the sister of auscultation, was mature already when auscultation was born. Some mode of percussion had been practised since the time of Hippocrates. Preceding the publication of Laënnec in 1819, there are only intimations of the possibility of auscultation, and these have been hunted out of musty volumes only within the last few years. All the glory of auscultation belongs to René Théodore Hyacinthe Laënnec, and the history of it, like the history of a nation founded by a great king, is, in large measure, the history of an individual.

Laënnec would probably never have discovered auscultation, had he not been a pathologist first. It was at the time when clinicians were just beginning to look upon diseases as lesions of organs. Laënnec was looking at the lesions in the lungs after death. He was at work upon a classification of diseases based upon anatomical lesions, limiting himself, however, to diseases of the chest, which always seem to have had for him especial attraction. For eighteen years Laënnec worked in the field of pathological anatomy before the clinical fruits of it were ripe. Laënnec was born in a little country town, Quimper, of Brittany, in 1781. He was raised by his uncle, a physician at Nantes, and came to Paris to prosecute his studies very young. His first public allusion to his work was in 1815, when he called the attention of the Paris Academy to the value of auscultation in a case of hydrothorax which he presented. It is supposed from the character of this case that his first intimation of auscultation was derived from the old Hippocratic succession which has now fallen into disuse. But Laënnec had shown signs of talent long before this in works on Hippocrates and on entozoa.

It does not seem strange that auscultation of the lungs should have been discovered after, and in consequence of, auscultation of the heart. For the recognition of the tumultuous action of the heart had attracted the attention of even Hippocrates, and it was his custom, as it was the custom of all his followers, to put the hands over it, that is, to practise palpation, in diagnosis of its condition. It is established by his writings that Hippocrates even put his

ear upon the chest in his endeavor to recognize the condition of the heart. But with the exception of a record by a single observer, nothing more was written of auscultation up to the time of Laënnec.

Laënnec's friend, Bayle, who had recently written the best work extant on tuberculosis, had called his attention to the ease with which the sounds of the heart might be recognized by the ear in cases where the hand might fail in appreciation of them on account of embonpoint or surface dropsy. Just such a case presented itself to Laënnec in the person of a young lady, and the reserve which this case imposed led him to roll up a piece of paper in the form of a cylinder, that he might practise mediate instead of immediate auscultation. To his great surprise, the sounds of the heart, instead of being diminished, were intensified. It now occurred to him to extend his observations to ascertain the state of the lungs, the voice, the pleura, and pericardium. This was the birth of auscultation. It was in 1816—Laënnec was just thirty-five years old. He worked with his new discovery three years, having been appointed in the meantime physician to the Hospital Necker, and then, in 1819, he published the first edition of the work which has since immortalized his name. It is in two volumes, and is entitled "*De l'auscultation médiate ou traité du diagnostic des maladies des poudrons et du cœur fondé principalement sur ce nouveau moyen d'exploration.*"

In 1823 he established his clinic at the Charité; in 1826 he became Professor of the College of France, Professor of the Faculty of Medicine of Paris, member of the Academy, etc., and in the same year, in the act of publishing the second edition of his work, he fell a victim to the disease, phthisis, the recognition of which he had done more to establish than all his predecessors.

Laënnec's stethoscope was a curious piece of mechanism. It was a wooden cylinder, a foot and a half long and an inch and a half thick. It was perforated throughout its length by a canal one-fourth of an inch in diameter. The bottom of it was hollowed out like a funnel. For convenience of package it was made of two pieces screwed together in the middle.*

I show you here a dozen varieties of stethoscopes, solid and tubular, rigid and flexible, of wood, bone, hard rubber, and metal. None of them have any essential advantage over the original instrument of Laënnec, and, as we have since learned, no one of them is as good as none at all. For the *auditus eruditus*, the educated hearing, is not a question of mechanics, but of the perceptive faculties and the intellect.

Some vague references to auscultation have been discovered in the writings of Celsus Aurelianus on acute diseases, of Ambrose Paré in his "*Table méthodique*," etc. (*phénomènes perçus par l'ouïe*), of Quarin, and of Harvey; but the sole reference that merits notice, from the time of Hippocrates down, is a curious statement of Robert Hooke in 1680, recently exhumed by Tyndall.

"It is not impossible," said Hooke, "to discover the modes of motion and the action of bodies by the sound which they produce. As in a watch we may hear the stroke of the balance, the rotation of the wheels, the friction of the works, the shock of the

* Mons. A. Chereau relates, Arch. Gén. de Méd., July, 1859, that Laënnec's first device, after the paper roll, was a "tubular cylinder of gold-beater's skin which he filled with air by means of a siphon, and of which the central opening was maintained by means of a support of pasteboard." The author speaks of having seen in his youth the first wooden instrument, and "in truth it had a size altogether weird and well adapted to terrify patients."

hammers, and many other sounds, may we not discover the movements which take place in the interior of bodies, animal, vegetable, or mineral, by the sound which they produce, recognize the works accomplished in the interior of the divers factories of the human body, and learn thus what are the instruments or the tools which functionate badly, at certain times, abnormally with others? . . . I feel the blood mount to my face, when I consider with what disdain the majority of men will receive what I am about to say: I have found more than encouragement in recognizing by experience that I could hear perfectly the strokes of the heart of man like an accustomed sound, the coming and going of gases in the intestines or in other small vessels, that I could distinguish the state of the lungs by the sound of the respiration, the rheum of the brain by the sniffing of the nose, the displacement of joints by the clicking, and the sensation of the movement of organs in displacing each other." I quote this passage second-hand from the "Traité de percussion et d'auscultation," by E. J. Woille, Paris, 1879, p. 124. The words of the English author may therefore be somewhat different, though I repeat to you a literal translation; but the sense must be completely expressed. Not many of us would blush now to have been the first to recognize the possibility of auscultation of the heart and lungs.

Auscultation has had a wide range since its discovery by Laënnec. A new special sense was added to the recognition of disease. Attempt is now made to utilize it in every cavity and over every solid organ of the body. I need hardly more than mention the value of it in the diagnosis of anemia or of an aneurism. But nowhere has it furnished such brilliant disclosures as in the field of obstetrics. And here, strange to say, it gives evidence of more positive value than in diseases of the chest. For, as Skoda has so clearly shown—and this is the chief merit of his work—an auscultatory sign is not pathognomonic of any disease of the chest, as the old French authors taught. Any sign may be heard in almost any disease. An auscultatory sign means not a certain disease, but a certain condition of the lungs, a condition which may be produced by a great variety of diseases. Whereas, auscultation of the foetal heart means always, absolutely, beyond dispute, the existence of gestation and the life of the foetus.

Mayor of Geneva, first announced the recognition of the sound of the foetal heart in the *Bibliothèque Universelle de Genève*, vol. ix., November, 1818. Mayor was listening for active movements of the foetus, with the head directly upon the abdomen of the mother, when his quick ear detected the finer movements of the foetal heart. It was a purely accidental discovery, but was not without its import to the Genevese physician. He even proposed to utilize its presence or absence to determine the life or death of the child. Like most of the discoveries of pure accident, however, the sound of the foetal heart did not impress its real discoverer with its full and varied significance. There was no mention of it further, and it was reserved for Kergaradec, the friend and pupil of Laënnec, to rediscover it, and fix it as a fact forever. Kergaradec's discovery, or rediscovery, was totally independent of, and without the knowledge of the previous publication of the physician of Geneva. It happened in the prosecution of studies with the stethoscope, then the novelty, and the discovery of his friend and preceptor, Laënnec. Kergaradec was listening for a wave-sound—a motion of the waters by concussion from the limbs of the foetus—which he failed to detect, of course, as there was no free space

or air by which sound could be produced; but it was while still listening for these impossible sounds, that there struck his ear the tic-tac of the foetal heart, which he recognized at once. Listening now for the foetal heart, he detected that other sound, the birth-right of whose discovery is indisputably his, viz., the sound of the uterine or utero-placental souffle.

The committee appointed by the Paris Academy reported favorably upon these sounds, and thus the discovery received at once scientific recognition. But there were not wanting objections to their value. Dugés and Baudelocque were not willing to accept them as diagnostic signs of pregnancy. Maygrier claimed that they should be accepted as only corroborative signs, and Foderé maintained that the sound was too deceptive. But when Lenormand discovered the existence of a pregnancy in a case which had been treated for seven months for scirrhus of the right ovary, the objections all fell to the ground. Laënnec himself at once accepted the obstetric sounds in their full significance. In the second edition of his work he incorporated the "Mémoire sur l'auscultation appliquée à l'étude de la grossesse," read by Kergaradec before the Royal Academy of Medicine, December, 1821, and declared that he had confirmed the truth of all its statements. Laënnec himself paid to the skill of Kergaradec the highest compliment he could receive—a compliment keenly appreciated under the circumstances, as we may well understand—when he wrote "the study of the phenomena we are about to describe demands incomparably more attention than that of any connected with diseases of the chest." *

Of the varied significance of the foetal heart-sounds in determination of life, position, single or multiple foetus, sex, etc., this is no place to speak. It is a chapter that belongs to the chair of obstetrics, where every instruction will be imparted; but I cannot refrain from noticing for one moment the meaning of it in determination of pregnancy itself. I have before me a work on obstetrics, published at Weimar in 1822, Froriep's well-known "Handbuch der Geburtshilfe," a text-book in its day in various schools. News travelled slowly fifty years ago. No mention whatever is made of the sounds of the foetal heart. Under the diagnosis of pregnancy are given many curious signs, thickness of the neck, for instance, from thyroid enlargement, increase in the size of the buttocks, etc.; these, of course, after cessation of the menses, changes in the mammae, cervix uteri, etc.; and finally, the author concludes, p. 186: "There is, therefore, no single absolute sign that alone and in all cases determines the existence of pregnancy, except the actual commencement of labor, dilatation of the os, and distinct palpation of the presenting parts of the foetus." †

Since the days of Kergaradec a skin disease is not easier to read than is pregnancy after the fourth or fifth month.

I think I need scarcely make an apology for this detail upon a part of the subject which strictly belongs to another chair. We are engaged with the history of auscultation in general. Obstetric auscultation was discovered and established by general clinicians, and is the most brilliant chapter in the whole book.

Auscultation in our day has ceased to be a novelty.

* "L'étude des phénomènes dont nous venons de parler dans cet article demande incomparablement plus d'attention que celle de tous ceux que présentent les maladies de la poitrine."—Vol. II., p. 466.

† Es gibt also kein einziges absolut sicheres Zeichen, was allein und in allen Fällen über das Dasein einer Schwangerschaft entscheiden kann, ausser den wirklichen Anfang der Geburtsarbeit, wo die durch die Hand in dem geöffneten Muttermunde deutlich fühlbaren Theile des Kindes freilich keinen Zweifel mehr Raum lassen. P. 186.

The lustre of its value has been apparently dimmed by later aids to diagnosis. The microscope, ophthalmoscope, laryngoscope—above all, in our day, the aspirator—appear before the stethoscope. But it is only because of their novelty. The stethoscope remains the symbol of clinical medicine.

Original Communications.

HEAT IN THE TREATMENT OF FEVERS.

By FRANK ALLPORT, M.D.,

RYCAMORE, ILLINOIS.

AN enumeration of the many indications for the use of external heat in treating disease, together with the pathology of such affections, and the distinct evidences for its administration, would be incompatible with the aim and scope of this paper. My endeavor is simply to bring before the profession, some of the more important points, relative to the efficacy of external heat in battling with some pathological conditions, and to enter a plea for its more extended adoption.

When the opinion is advanced, that in the essential pyrexia this agent is most signally useful, the writer would not be misunderstood as conveying the idea, that here alone is benefit observable. Its administration is advantageous, under proper restrictions, in all diseases dependent upon internal congestion and deficient elimination.

The system is constantly undergoing the process of absorption, and that of elimination. Both are vital in their effects upon the animal organism. An individual may die of inanition, or may have the avenues of elimination so effectually disturbed, as to cause his demise. So accurately is the human frame constructed, that no one may enjoy perfect health unless each organ or organs of absorption and elimination, properly perform their functions. In case one means of casting off waste product becomes incapacitated, others endeavor to perform the work, and vicarious elimination is established. When one organ, or set of organs, thus assume the office of others, the additional labor is manifested in a corresponding degree of disease, in the overtaxed part. If the bowels or kidneys are impeded in action, and the tissues of the body become infiltrated with extraneous substances, a foul odor is observable in the exhalations from the skin, and lungs, and pathological conditions are the natural result. The human body contains 2,300,000 sweat-glands, from which nearly two pounds of perspiration should be lost daily. Let this amount be materially reduced, and the system quickly responds to the deleterious influences of the non-eliminated poisons, while the organs vicariously performing the skin's labor become correspondingly diseased.

In essential fevers, perhaps the most constant conditions are a variable amount of visceral congestion and a heightened temperature. The origin of the former is conjectural, but the latter is probably largely due to the non-elimination of effete products, occasioned by more or less inflammation in those organs elected for such work.

Physicians are lamentably prone to imperfectly distinguish between heat *proper*, and the factors producing it; at the same time, ascribing results, effects, etc., to the former, which should be attributed to the latter. For example, Liebermeister states in Ziemssen's

Cyclopedia, that "by far the greater number of those who succumb to typhoid fever, die from the effect, directly or indirectly, of the fever-heat." He also assigns the nervous symptoms of this disease to the same cause, and even, finally, goes so far as to consider death in typhoid fever, from whatever cause, as attributable to exalted temperature. A careful analysis of the conditions involved will, I think, convince one that the original difficulty is, as already stated, largely non-elimination. This it is which mainly aids in the generation of heat and the production of death. With these contingencies in view, a line of practice inducing vicarious elimination is indicated. Catharsis and diuresis are inadvisable, from a pre-existing irritability of those organs, acted upon by agents producing such effects. Profuse diaphoresis becomes, therefore, a desideratum, and for this purpose, nothing is so efficacious as the external application of heat. It opens the mouths of the tightly closed cutaneous pores, and liberates the perspiration loaded with the products of disease. Acting thus it becomes in the strictest sense an antipyretic.

Another agent of this character that has achieved great reputation, is the external application of cold. These two agents are apparently so diametrically opposite in their action, as to excite the inquiry, how both can be utilized in treating similar affections. In pursuance of this query, a brief analysis of the action of each will be made.

With cold, a shock is first produced, impelling the blood to the viscera, and closing the cutaneous pores. A reaction is soon expected, upon which the blood flows to the surface and relieves visceral congestion, a perspiration breaks forth, and the temperature is reduced. With heat, a subtraction of blood from visceral organs is first produced, simultaneously seeking the surface. The pores are opened. A quickly acquired profuse perspiration soon occurs, and as the system is emptied of the accumulated poisons the temperature falls.

I have said, in reference to cold, "a reaction is expected." Unfortunately this is not invariable, in which case death ensues, attributable to non-recovery from the shock. Reaction, therefore, accomplishes the benefit, by saving the patient's life from the first effect of the remedy. It is not, then, to the *immediate refrigerant action of cold* benefit must be ascribed, but to the powerful recoil of the system, from the shock produced by the application.

The antipyretic method of treating fevers is acknowledged, by those most capable of judging, as superior. Granting that cold and heat stand first in the category of such remedies, it remains to decide which of these, duly considering all things, should meet with the more approbation. At this juncture I will quote from the editor of the British Medical Journal and Prof. Liebermeister (both advocates of the cold bath), while speaking of this method of dealing with fevers. The former says: "The only contraindications to this treatment are, first of all, hemorrhage from the bowels in typhoid fever, even if it be present in the slightest degree. Perforation also precludes its continuance." The latter regards hemorrhage from the bowels as constituting one of the contraindications to the use of cold baths, and yet claims that this very complication is lessened in frequency by the use of cold. He says: "It is possible that the determination of blood to the internal organs, caused by the abstraction of heat, may increase the tendency to hemorrhage. The same thing, of course, holds true to a still greater degree in case of perforation of the bowels." Admission is here made that cold induces

a determination of blood to the internal organs. If this be true, and visceral congestion is one of the pathological conditions of typhoid fever, it would appear that any remedy aggravating this condition, would *always* be contra-indicated.

Liebermeister leaves the reader to infer, that a reduction of febrile action is expected when the surface of the body is cooled, and the internal organs congested, for he distinctly states, that abstraction of heat by the application of cold, induces a determination of blood to the viscera. This is strange philosophy, and would seem to indicate that the cutaneous surface is the most important seat of disease in typhoid fever.

The cold-water system is losing favor, and statistics from various hospitals, as stated by Dr. Peters, of Cohoes, N. Y., and others, indicate that it does not, in many instances, compare favorably with even expectant treatment. The hospitals in Vienna and Paris have declared against it. The mortality at Ulm, Stettin, Rheinau, and Ostprussen has been increased by it. Wunderlich, of Leipsig, reports a large percentage of deaths by this treatment, and Drs. Flamarion, Grimshaw, and Pepper hold the cold bath system in decided disrepute.

Liebermeister states, as the result of investigations in the hospitals at Basle, that there were, before the introduction of cold water, $7\frac{1}{2}$ per cent. of relapses, with two deaths. After the introduction, $9\frac{1}{2}$ per cent., with ten deaths.

Notwithstanding he attempts to explain away this unfavorable comparison, it is conceded that the cold bath treatment probably increases relapses, and he says: "If relapses are more frequent under antipyretic treatment, it seems natural to conclude that this treatment in so far interferes with the normal course of the disease as to retard the development, destruction, or expulsion of the poison as a whole, or entirely to prevent these changes in a certain portion of the poison." These investigations, etc., have induced Liebermeister to confess that he does not regard cold bathing as the remedy *par excellence* in typhoid fever; in fact, he observes that, "If I were forced to the unpleasant alternative of adopting only one or the other of these two remedies (cold water or quinine), I should, in the majority of cases, choose the latter."

Biermer and Lindwarm consider that this treatment increases relapses, and Shultz states: "It causes a considerable increase of hemorrhages by $4\frac{1}{2}$ per cent." He also says: "The different forms of delirium and complications are much increased." Lichtenstein asserts that he has observed 1,960 cold baths in typhoid fever, and that in 380 of these the temperature of the body was as high two hours after the baths as before, and *sometimes higher*.

Another argument against the cold bath is that too careful watching is required. Dr. Albutt, of England, an advocate of this system, says: "I would urge the continued presence of a medical man. The whole treatment must be managed with the utmost precision, and all tendencies to shiver or syncope should be watched by a skilful observer, or *irreparable damage may be done in five minutes*." Is it proper to continue the use of this remedy, so potent for evil, when we have in heat an agent both superior and less dangerous?

A comparison of the reduction of temperature produced respectively by the application of cold or heat, shows the former as more decided in its action. Dr. Beal cites cases from the practice of Dr. Wilson Fox, where the temperature was reduced, by a single immersion, eleven degrees. The reduction by heat has

never, so far as I can learn, equalled this by several degrees. This might at first be deemed evidence favorable to cold; on the contrary, it is antagonistic to it. There can be no doubt that such rapid and eccentric changes are usually of positive injury. It must be remembered that, after a reduction, a counteraction occurs, and the thermometer will soon register a rise in degrees, which may equal, and even exceed, that previously lost. Such decided and sudden vacillations are surely pernicious. What we require is a gradual but positive declination of temperature, such as obtains with the proper application of heat. Dr. Albutt states that a too rapid diminution of temperature is positively injurious in fevers. With this idea in mind, he endeavors, while still clinging to the cold bath, to somewhat modify its application, in order that so rapid a diminution may not be produced.

Neither heat nor cold is a specific in fevers. The benefit they accomplish is performed through profuse diaphoresis, by vicariously eliminating the manufactured, but imperfectly excreted poisons, thus relieving visceral congestion, and placing the system in a better condition to withstand the deleterious effects of the fever. My claim is, that heat accomplishes the desired result *better than cold*, and with far less danger.

In conclusion, I would beg leave to reply, very briefly, to Dr. Cowling's criticism (RECORD, Sept. 13, 1879) of my article on yellow fever, appearing in the RECORD of Aug. 16, 1879. He sees no analogy between Dr. Leared's experiments, and the applicability of the Turkish bath in yellow fever. The experiments referred to proved by ophthalmoscopic examination that internal congestion was lessened by the external application of heat. Granting this, and that visceral congestion is among the most important pathological conditions of yellow fever, how is it possible he can see no analogy between the experiments and this treatment of the disease?

Dr. Cowling says: "In yellow fever the blood is frequently thick and sluggish, having apparently lost its more fluid parts, and excessive sweating is not likely to replace it." May not this sluggish condition arise from an accumulation of eliminatory substances, as well as from loss of water? In cholera the condition of the blood is dense and viscid; and yet it is observed that the use of jaborandi, and the consequent excessive diaphoresis, is meeting with great success in treating this disease at Yokohama.

Dr. Cowling remarks that he is able to cite cases where excessive sweating was a factor in producing death in yellow fever. In these instances, it is possible that heat may not have been applied properly, or sufficient care may not have been observed in protecting the patient after the application.

If space allowed, reports might be adduced, where the external application of heat has proved highly advantageous in treating this disease in South America and elsewhere.

In the brief analyses just made it will be observed that with cold, shock, visceral congestion, and closure of the cutaneous pores, are first produced; but with heat no shock nor visceral congestion occur, and sweating is usually the primary result attained.

THE University of Edinburgh has presented the Cameron prize, established to encourage studies in therapeutics, to Mr. Paul Bert, for his discovery of the value of compressed protoxide of nitrogen as an anæsthetic of long duration.

ELECTRICITY A PARALYZING AGENT.

By THOS. W. POOLE, M.D., M.C.P. & S., ONT.,

AUTHOR OF "PHYSIOLOGICAL THERAPEUTICS."

AMONG the standard writers on medical electricity this agent is regarded as an "alterative," a "tonic," and a "stimulant;" while by some it is said to possess these qualities in combination. Experimental physiologists invariably regard it as an "excitant," or "irritant" to nerve-tissue, and interpret the effects produced in accordance with this view of its action. It may be thought very bold in us to call in question opinions so generally received; but as we are persuaded the view of the action of electricity we are about to present is well founded, and especially as we shall appeal to the recognized authorities themselves in support of our thesis, we ask for it a fair and candid hearing.

We assert that electricity is a paralyzer of nerve-tissue, and we claim that all the effects it produces, as employed for therapeutical and physiological purposes, may be readily accounted for on this view of its action. In proof of its paralyzing effects on nerve-tissue, we point, first, to Matteucci's experiment on the spinal cord of a living rabbit, in which it was shown that during the passage of a common galvanic current the cord might be pricked, cut, torn, burned, or otherwise injured, without eliciting from the animal any sign of pain. Dr. C. B. Radcliffe, F.R.S., quotes this experiment (with others) in his "Lectures on Epilepsy, Paralysis, and Pain," and there distinctly asserts "the paralyzing influence" of electricity: "Whether the current was passed up the spine or down the spine, the result was the same so far as its paralyzing action was concerned, and so it was in the other two experiments which have been mentioned" (p. 65). Dr. Radcliffe, however, asserts that the muscles, as well as the nerves, are paralyzed by the galvanic current, to which, as well as to some other of his conclusions, we take exception, for reasons which will hereafter appear. Drs. Beard and Rockwell, leading medical electricians of New York, also testify to the same effect in stating that "the cord remains insensible to any stimulus that may be applied to it, so long as the current is passing." (Med. and Surg. Elec., 2d ed., p. 127). Dr. Moritz Meyer refers to the observations of Valentine, Matteucci, and Eckhard in this connection, and to the effects of the constant current on nerve-tissue, and adds: "In other words, *the nerve is paralyzed* so long as any portion of it is subjected to the action of a continuous current" (Elec. in Prac. Med. (Hammond), p. 62).

The faradic current produces similar paralyzing effects, which differ from those of the galvanic current "mainly in degree." Thus the faradic current has been effectually employed to benumb local sensation in parts about to be subjected to minor surgical operations, and, as is well known, both currents are employed for the temporary relief of neuralgia and other painful states; for which result no better explanation can be offered than that the nerves of the affected part are for the time so paralyzed as to render them incapable of transmitting the sensation of pain. It may be said that this effect is properly anæsthesia rather than paralysis; but these are only different names for the same condition, and as Dr. Austie has fully shown, anæsthetics are invariably paralyzers (Stim. and Narcot, pp. 273, 328, 398, etc.) Electricians frequently allude to "the benumbing effects" of electricity, including both the galvanic and faradic currents (Drs. Beard and Rock-

well, loc cit., pp. 122, 123). When the functional activity of a nerve is not simply perverted, but arrested, it may with propriety be said to be paralyzed, and the agent producing this effect is certainly not entitled to be called a stimulant, or its action that of an "excitant," as has been so much the rule in regard to electricity.

It is important here to note, as negative evidence of the truth of our proposition, that Prof. Trowbridge, of Harvard College, U. S., has demonstrated that the supposed natural currents of electricity, believed by Matteucci and Du Bois-Reymond to be present in nerve and muscle in repose, do not exist; but that the perturbations of the index of the galvanometer witnessed by them really depended upon currents developed in the galvanic accessories of the experiment, and not in the nerves or muscles themselves; * so that, so far as known, electricity plays no part whatever in the inter-relations of nerve and muscle. Nor is electricity known to be generated at all in the bodies of men and animals, since even in the case of certain electric fishes, which display a remarkable use of this agent, the electricity which they discharge may be simply induced in them by the opposite electricity of the media surrounding them, as appears to be probably the case in certain men and women who give out sparks of electricity—a condition largely dependent on the electric state of the atmosphere, that of their surroundings, and their own peculiar electric relations to these. It is true that electricity is found on the surface of animal and other bodies, in the static form, in which, so far as is known, it is inoperative and exerts no influence on vital processes, as the negative result of "charging" the surface of the body with electricity on an insulated stool serves as an illustration. In view of the present state of knowledge on this subject, those who assert that natural electricity plays any part in the vital operations of the living organism will have to begin anew the task of eliciting evidence in support of that doctrine.

Turning now again to the subject of artificial electricity, the question at once arises, If this agent be a paralyzer of nerve-tissue, how does it "stimulate" the muscles to contract in the manner so commonly witnessed? The reply to this inquiry involves an issue which we have attempted to discuss at length, in a recently published work, entitled "Physiological Therapeutics," and at which we can only glance in the space available here.

We are convinced that the nerves do not "stimulate" the muscles to contract. We find all the physiologists asserting the inherent contractile power of muscular fibre, and even admitting the ability of muscle to exercise this power, in many instances, quite independently of nervous influence. Illustrations of this are to be found in the movements of microscopic portions of protoplasm; in the contractions of the fetal heart before the development of nerves; in rhythmical and other movements of muscular parts after death of the body; in post-mortem parturition in pregnant females who had died undelivered at or near the end of the period of gestation; in parturition normally occurring in cases where the spinal cord had been destroyed by disease, or paralyzed previously, well authenticated cases of which are mentioned by Dr. W. B. Carpenter (Human Physiology, 5th Am. ed., pp. 979, 980); in the existence of rigor mortis, the facts of which have not been explained on any satisfactory basis (not excepting the latest hypothesis.

* Amer. Jour. of Science and Arts, May, 1872. Drs. Beard and Rockwell's Med. and Surg. Elec., 2d ed., pp. 108-111.

which refers it to coagulation of the myosin or muscle plasma), other than that of independent muscular contraction, which is the view of the late Dr. Anstie and of physiologists generally.

Dr. C. B. Radcliffe, in the work already quoted, asserts (in support of a different thesis) that "muscles do not pass into a state of contraction when they may be supposed to receive a larger supply of nervous influence than usual;" and, again, that "ordinary muscular contraction is associated with deprivation of nervous influence;" nay, more, "that the power of muscular contraction is inversely related to the amount of nervous influence supplied to the muscles from the nervous centres" (pp. 95-100). The experiments of Sir A. Cooper, Kussmaul and Tenner, and Dr. Brown-Séquard, are quoted in support of these propositions, which find additional confirmation in such facts as the cure of a much larger percentage of cases of tetanus by stimulants than by any other means (Dr. W. A. Hammond, *Diseases of Nerv. Syst.*, 540). It is only on the view that in the excessive muscular contraction here witnessed nerve-force was in abeyance (and not in excess) that stimulants could be justifiable, or this result explained. Dr. Anstie was so impressed with the force of Dr. Radcliffe's argument that after referring to it he writes: "The true action of vital force would appear to be rather that of restraining muscular contraction than of exciting it" (*Stim. and Narcot.*, p. 70).

Although Dr. Anstie does not appear to have further supported the opinion just quoted, it is certainly the view of the relations of nerve to muscle most consistent with the facts. It would really appear that whatever cause paralyzes nerve-force sets the muscle free to assert its inherent contractile power, and it does this with clonic or tonic results in proportion to its freedom.

Electricity paralyzes the motor nerves, and so permits muscular contraction. This principle, like a master-key, unlocks the fastnesses and clears up the obscure and hitherto unexplained problems in electrical treatment. It accounts for the benefit this agent sometimes affords to muscles suffering from enforced disuse, by the exercise it gives them, thus attracting blood, and with this pabulum, whereby their nutrition is improved. It accounts for the failure of electricity in chorea (Dr. J. Russell Reynolds, *Clin. Uses*, etc., p. 83) and in spasmodic states generally. Why this failure? Because the preponderance of muscular action here is owing to the too feeble restraint already exercised by weak or exhausted nerves, and an additional paralyzing agent is the least likely means to benefit them. It explains why electricity is powerless for good whenever, as in early and late rigidity, it fails to induce muscular contraction; because the muscle is already isolated from the nervous centre; the nerve is paralyzed and electricity can paralyze it no further; the muscle is already freed from nervous restraint, and as electricity can free it no further it fails to cause it to contract, and its use can do no good, but may do much harm. It also serves to explain why it is, "if you find, for instance, a limb perfectly paralyzed, but contracting perfectly well to galvanism, or sometimes acting even in excess, you can do nothing more by applying galvanism to that limb" (Dr. J. Russell Reynolds, *Clin. Uses of Elec.*, p. 94). The benefits of electricity are for the muscle, in the manner already stated, but here the muscles are healthy and their condition cannot be improved. It is the nerve that is at fault, and electricity not being a tonic, or stimulant, or vitalizer to it, does not improve its condition, as it ought to do if it possessed the qualities attributed to

it. Here is a problem: "Why the muscles that are paralyzed should act more readily than healthy muscles to a slowly interrupted current has not yet been explained" (ib., p. 98). The explanation is easy. A weaker current serves to paralyze the nerves of the diseased limb, and set the muscles free to contract, than will suffice for the healthy nerves of the sound limb. Why a slowly interrupted galvanic current is sometimes effective for this purpose, where the faradic current fails, we have discussed elsewhere in our "Physiological Therapeutics," where the more important objections to the theory here advocated have also been considered.

Numerous facts might be adduced to show that the relations here assigned to motor nerve and muscle, apply also to the vaso-motor nerves and muscular coats of the arterioles. But as this part of the subject is only indirectly associated with the topic of this paper, and as we have discussed it in a recent issue of the RECORD, under the title of "The Effect of Pithing on the Vascular System," we make no further reference to it here.

We have already shown, how, as a paralyzing agent, electricity indirectly benefits muscles whose functional power is impaired from atrophy or disuse,—by improving their nutrition. A wide field of usefulness is also open to this agent—on the same view of its action as a nerve-paralyzer—in the control it exercises over vascular activity in organs and tissues. By paralyzing the vaso-motor nerves (whose function we claim to be to dilate the arterioles) it brings into play the independent contractile power of the muscular tissue of the arterial coats, and thus produces a reduction in the calibre of these vessels, arresting congestion and diminishing blood-supply to morbid growths or hypertrophied tissues, with the gratifying results not unfrequently recorded. Thus the undoubted beneficial results of electricity in certain cases, as well as its failure in others, find a ready explanation in the theory we advocate.

The present physiological theory of the action of electricity in arresting the heart is of a most extraordinary character. Faradization of the sinus venosus of the heart of the frog, at its junction with the auricle, brings the heart to a standstill. In order to account for the arrest of the heart by a reputed "stimulus," it was necessary to assume that it is a hypothetical "inhibitory" ganglion, which is thus excited so as to overpower the motor ganglia of the heart, and cause it to stop, and at the same time that the proper motor ganglia of the heart escape the "excitation" of the faradic current altogether.

Now, the chief motor ganglion of the heart of the frog is said by physiologists to be situated in the sinus referred to, close to the auricle, at the very point to which they apply the faradic current to arrest the heart. Why the motor ganglion, to which the current is thus directly applied, should be regarded as uninfluenced, while another ganglion, a little farther off in the septum, should be "excited" (though less directly in the range of the current), so as to master its reputed rivals and stop the heart, is a problem which requires explanation. We claim that the application of a faradic current to the chief motor ganglion of the heart paralyzes it directly, and so stops the heart; and further, in a paper in recent issues of the Canada *Lancet*, we have undertaken to show on physiological authority, that the so-called "inhibitory," "accelerator," and "depressor" nerves of the heart do not discharge the functions these names imply; that they do not directly influence the heart at all, and, so far as they influence it indirectly,

they do so through "the peripheral circulation" in the manner of ordinary vaso-motor nerves.

We desire to refer briefly to the serious consequences which may, and have, resulted in practice from the mistaken idea that electricity is a tonic or stimulant. We refer especially to its use as a supposed restorative in cases of suspended animation, as in apparent drowning, or in threatened death from chloroform. The cases on record where apparent benefit has resulted from electricity in these states, are so few, so associated with other remedial processes, and generally so unsatisfactory, as to furnish no trustworthy evidence in its favor, while that to the contrary is direct and convincing. It has notably failed in experiments where these states were artificially produced to test its powers, in the hands of such experienced electricians as Drs. Beard and Rockwell (Med. and Surg. Elec., 2d ed., pp. 665-6). It has extinguished the spark of life in cases of threatened death, which were happily recovering under other means; and many more such catastrophes would be on record, if duly reported, and if it were not that batteries are frequently not available on such occasions—or when so, are often out of order, and fail to act.

Dr. Ringer, in writing of the use of electricity in these cases, states that "some authorities are wholly opposed to its use, on the score of its influence to arrest a very feebly beating heart, and so diminishing any slight remaining chances of recovery" (Therapeutics, p. 292). Dr. B. W. Richardson, of London, England, writing of resuscitation from the narcotism of chloroform artificially induced, states: "I feel it too unreasonable to recommend galvanic action as a means of resuscitation. Galvanism is a two-edged sword. It might by accident, I may say, in some cases, restart respiration, but it would in this respect be inferior in principle to artificial respiration, and in the majority of cases it would more effectually promote death than restore life. . . . When used as it is commonly used, merely to excite prolonged contraction of muscles, it is not aimless merely, but positively mischievous." Having narcotized a rabbit with chloroform till respiration and other evidences of life had ceased, and restored it by artificial respiration, he narcotized another to a similar degree, to show the effects of electricity. Commenting on the fatal result, he states: "When I used the electric stimulus [observe the word employed in this connection], I took out of the muscles what remaining force was there—the primary force required for recovery—and under the semblance of restoring life, *clenched death!*" (Medical Times and Gazette, 1870. Braith. Retros., January, 1871, p. 256.)

How well this tallies with the action of electricity as a paralyzer, and how very inconsistent it is with its action as a reputed stimulant! Yet such is the force of habit, custom, or blind adherence to authority, that men call that a stimulus while in the very act of recording its paralyzing effects. Nor is Dr. Richardson happy in his allusion to taking the force out of the muscles. The muscle is not paralyzed by electricity. It will soon pass into rigor mortis, in which it will display "the most steady and persistent contraction which muscle can possibly exhibit," to use the words of Dr. Anstie, a condition which electricity simply hastens. If Dr. R. had stated that by means of the electric current he had intensified the already existing paralysis of the nerves (produced by the chloroform), and thus prevented all chance of recovery, his statement would have been more in accord with his facts, and with the ideas he evidently intended to convey. Let us be courageous, and call a

spade a spade. "A rose by any other name would smell as sweet," but it is highly dangerous to label certain paralyzers roses—or stimuli—and proceed to employ them accordingly.

This fatal error has warped the whole course of physiological research, and given rise to the most absurd and contradictory statements in therapeutics. As an example, we are told by Preyer that "belladonna paralyzes the peripheral branches of the vagus and at the same time stimulates the nervous centres of respiration."

The fundamental error regarding electricity is responsible for this statement of contraries. Here is the process by which such a conclusion is reached. Electricity is said to be a stimulus. But it stops the heart. Then it must be assumed to excite (not the heart's motor ganglia, which would urge it faster, but) a nervous rival antagonistic to the motor ganglia. Hence the assumption of the "inhibitory" mechanism, which, so to say, is supposed to apply the brakes to the heart's motor ganglia. It follows from this, that to urge the heart to increased action we must stimulate its motor ganglia; to arrest it, we excite the inhibitory nerves. The action of drugs is interpreted according as they seem to act in one or other of these ways. Belladonna quickens the heart's action (under certain conditions). Hence it is said to paralyze the inhibitory ganglia (Dr. Ott) and also to paralyze "the peripheral branches of the vagus," which are understood to be connected with the inhibitory centre in the heart. By another chain of reasoning it is concluded that it excites the vagus at its origin.

It is pertinent here to inquire how the heart's motor ganglia escape the effects of the drug which is assumed to paralyze their rival? They are in proximity, in the same organ, fed by the same blood-stream, and yet one is held to be uninfluenced while the other is paralyzed. Again, Dr. Carpenter states that the membranous sheath of nerve-fibres "is not penetrated by blood-vessels." How then can the "branches" of a nerve-trunk be influenced by poisoned or medicated blood, except by impressions made on the nerve-centre and transmitted along the trunk? And if this be true physiology, how can a nerve-centre and its trunk, or "branches," be in opposite conditions of excitation or paralysis? Is it not preferable to believe with Dr. Anstie that the action of narcotics "is an uniform one, and tends entirely in the direction of nervous death!"

A recent physiological author writes of belladonna: "It paralyzes the motor nerves of frogs, at the same time that it excites the spinal cord; after they recover from the motor paralysis, the tetanic symptoms of spinal stimulation appear" (Dr. Ott, Action of Drugs, p. 138). Is it by such teachings as this that we can ever learn the true action of drugs? Surely the hypothetical "Philadelphia lawyer," who is reputed able to solve all difficulties, has been at work here, preparing "a case" for the veritable Philadelphia doctor! But seriously, the inferences drawn from electrical experimentation, as to the functions of organs, when applied to the observed effects of drugs on these functions, have led even eminent writers into many such absurdities.

Electrical experimentation has borne a very prominent part in formulating the current views of the functions of certain parts of the organism, and has assisted in building up a very complex theory both of these functional activities and of the action of drugs in relation to them. A recognition of the true action of electricity as a paralyzer, instead of as a stimulus to nerve-tissue, would, we believe, be a great gain to both physiology and therapeutics.

LINDSAY, ONT., CANADA, Oct. 8, 1879.

Reports of Hospitals.

METROPOLITAN THROAT HOSPITAL.

SERVICE OF DR. CLINTON WAGNER.

CASES OF INTRA-LARYNGEAL GROWTHS—OPERATIONS AND RESULTS.

(Reported by H. H. HOWLAND, M.D.)

CASE I.—Geo. S—, aged six years, a frail, delicate child, extremely emaciated, was brought by his parents to the Metropolitan Throat Hospital, on February 2, 1879, for hoarseness, difficult breathing, and frequent attacks of spasm of the glottis, especially at night. His father stated that he had had several attacks of croup. The hoarseness and difficult breathing appeared shortly after last attack, nearly eighteen months ago. A laryngoscopic examination revealed a large papillomatous growth covering a greater portion of both cords anteriorly. Abduction of the cords was prevented by a web of false membrane, evidently the result of the attacks of croup, which left an opening posteriorly for the passage of air, scarcely larger than a pigeon quill. The extreme dyspnoea, with tendency to spasm of the glottis, the large size of the papilloma, and the presence of the false membrane, rendered an operation by the mouth impossible, and even the attempt Dr. Wagner considered imprudent and unadvisable. He was kept under observation a few days, during which time the dyspnoea increased, and the spasms of the glottis became more severe and more frequent. On February 9th, tracheotomy and thyrotomy were performed. The incision was carried down through the crico-thyroid membrane, but the cricoid was not divided. The growth and false membrane were thoroughly removed. A microscopic examination of the specimens by Dr. W. T. Alexander showed that the growth was a true papilloma, and the membrane of a false or adventitious character. Considerable irritative fever followed the operation, temperature at one time reaching 105° F., but under the careful administration of stimulants and nourishing diet he recovered. The tube was removed March 16th, and on March 30th, the external wounds having closed and healed, he was discharged cured. On April 26th he returned for examination, breathing excellent, voice improving, and had gained upwards of twenty pounds. He was again seen the latter part of August, and condition excellent.

CASE II.—Mrs. R—, aged 24; native of Germany; occupation washing. Consulted Dr. Clinton Wagner at the Metropolitan Throat Hospital, July 6, 1878, for hoarseness. She had been hoarse for over a year, and when examined was almost completely aphonic. A laryngoscopic examination showed vocal cords relaxed, and small outgrowths at junction of anterior and middle third, preventing perfect approximation of cords. In these cases instrumental interference cannot be resorted to on account of the small size of the growths, and of their thorough incorporation with the tissues of the cords; but good results will frequently follow by the persistent application of the following formula of iodine: Iodine, gr. iij.; potassii iodidi, gr. vi.; glyc., $\frac{3}{4}$ i., or zinci chloridi, gr. xv. to water, $\frac{3}{4}$ i. In this case the above formula of iodine was used twice a week, and in March, 1879, the nodules had entirely disappeared and voice perfect.

CASE III.—Mrs. S—, aged 32, native of America; occupation, sewing. Consulted Dr. Clinton Wagner at

the Metropolitan Throat Hospital, October 22, 1878, for hoarseness. Had been hoarse for over five years. A laryngoscopic examination showed a small papillomatous growth on superior surface of left vocal cord, overlapping free edge and near the anterior commissure. On November 11, 1878, Dr. Wagner removed the growth with Mackenzie's forceps. On March 10, 1879, patient revisited hospital. On examination, vocal cords normal and voice perfect.

CASE IV.—Jennie M—, occupation singer, who had a large papilloma on each cord, and which were removed by Dr. Wagner, April 8, 1878, and reported by him in a paper on Intra-Laryngeal Growths (*Medical and Surgical Reporter*, Columbus, Ohio), Case V. Revisited the Hospital May 8, 1879, thirteen months after operation. On examination, not the slightest trace of growth visible, and a good singing voice.

Progress of Medical Science.

VOMITING OF PREGNANCY.—Fresh evidence of the value of Copeman's method of treating obstinate vomiting in pregnancy is proffered by Dr. Baldwin, of Columbus, Ohio. All the usual remedies had been tried in vain in a case under his care; even nitrate of silver to the os, which seemed to be specially indicated by the existence of erosions, had proved useless. The cervix was then freely dilated with the index finger, with immediate and most gratifying results. The vomiting, which for two weeks had been almost continuous, ceased as by magic, and in a few days the patient was about the house doing her work. The improvement was permanent, no relapse occurring.—*The Ohio Medical Recorder*, August, 1879.

CARBOLIC ACID IN MALARIAL DISEASE.—A strong plea for the value of carbolic acid in malarial disease is published from the pen of Dr. A. G. Tebault. He says: "As a prophylactic, carbolic acid given in grain doses, at intervals of three to six hours, has, in my hands, yielded comparatively far happier results, even in cases where unmistakable prodromata of malarial fever were actually present. In experiments instituted during the past seven years on my own person and others, feelings of lassitude, malaise, cutaneous torpors, disturbed sleep, furred tongue, nauseous taste, and anorexia, often gave way under this treatment within twenty-four hours; and a pulse hitherto jerking and irritable became calm and of the natural rhythm, while a soothing, pleasant sensation pervaded the system. No fever manifested itself in any of the cases; on the contrary, the person felt refreshed and buoyant. No other agent which I have ever employed has superseded carbolic acid as an apparent disinfectant of the malarious taint within the system; and this, after anxious thought on the subject for years, is to my mind the first glimmer of light that may lead to the discovery of means to act directly on the poison of fever."—*London Med. Record*, Aug. 15, 1879; *Dublin Journ. Med. Science*, September, 1879.

FARADIZATION IN THE TREATMENT OF PURPURA HEMORRHAGICA.—Mr. Shand, of Glasgow, reports a case of purpura hemorrhagica in which the use of electricity was productive of most pleasing results. Mineral and vegetable astringents, ergot, tonics, were tried, but the patient continued to sink rapidly. On the fifth day of treatment bleeding was taking place from vagina and bowels; she looked bloodless, collapsed, and apparently dying. She refused all medi-

cines. Electricity was thought of and applied; the interrupted current was used, running the sponges over the whole surface of the body. This was repeated every two hours, and at midnight no more motions had taken place, but griping had set in. A piece of soap was now injected, and soon relieved her by producing two evacuations; the first consisted of blood, but the second was almost natural. The next day she was much improved, and the bleeding had almost entirely ceased. Tonics and astringents were again prescribed, and a speedy recovery followed. The electricity is supposed to act by exalting the tone of the nervous system, by facilitating coagulation, by toning the exhausted capillaries, and by encouraging the capillary circulation through acting as a general stimulant. Mr. Shand is in the habit of using a strong battery, with few interruptions, employing the upward and downward current indiscriminately, and does not pay much heed to Ziemssen's points of application.—*The Lancet*, July 19, 1879.

THERMOMETRY OF THE VISCERA.—At a recent meeting of the Berlin Physiological Society, Dr. H. Kroecker showed a number of globular maximum thermometers, and also some new cylinder-shaped instruments intended for introduction into the blood-current of living animals. Dogs could be made to swallow the globular thermometers without any trouble, while the cylindrical thermometers could be introduced into the femoral or internal jugular vein, or into the carotid artery without producing any disturbance. Those placed in the veins generally found their way into the peripheral branches of the pulmonary artery; occasionally, however, they were found in the azygos, the renal vein, etc., or remained in the right auricle—in a few cases in the right ventricle. Those placed in the central end of the carotid, and urged toward the aorta by injected blood, were driven to the remote arterial branches. Clots were occasionally found in the cardiac cavities from the presence of the thermometers, but not elsewhere. By means of these thermometers, the amount of heat developed during digestion, some notion of the temperature in different portions of the circulation, and the locality of the highest bodily heat were ascertained. The lowest blood-temperature of the inner portions of the body was found to be in the vena azygos (99.9° F.), the highest in the middle lobe of the right lung (105.9° F.) and in the empty intestinal canal (106° F.).—*Philadelphia Medical Times*, Aug. 30, 1879.

A NEW OPERATION FOR ENTROPION AND TRICHIASIS.—Dr. Hotz, of Chicago, proposes for the relief of these affections a new operation, which from an experience of forty-six cases he believes to be far superior to any of the operations at present in use. The operation is based on his belief that incurvation of the tarsus does not play any important part in the development of the majority of the cases of entropion; that the edge of the tarsus does not generally change its relative position to the eyeball; and that the so-called rolling in of the lid is nothing more than an inversion of the external integument, which has been rolled down and in by spasmodic action of the orbicularis muscle. He was long ago struck by the fact that even in the worst cases of entropion, slight traction on the skin of the lid by means of a probe laid out the upper border of the tarsus, is sufficient to evert the inverted edge, and he has utilized this experience in his operation, which is carried out as follows: An assistant fixing the skin of the eyebrow against the supra-orbital margin, the free edge of the lid is seized with forceps about its middle and drawn downward

until the upper border of the tarsal cartilage is horizontal; an incision is then made along this border from a point 2 mm. above the inner to one 2 mm. above the outer canthus, and the orbicularis muscle is carefully divided, and its connections severed from the upper third of the cartilage. The lower flap of skin with the muscle attached is next everted, and a strip of muscle about 3 mm. in width is dissected off from canthus to canthus. This strip must be cleanly dissected off, and, at the same time, any shreds of muscle left adhering to the upper third of the tarsus should be removed. Four sutures are then applied; they are introduced 2 mm. from the border of the lower flap, carried through the aponeurosis in the upper third of the tarsus upward, to a little above the junction with the fascia tarso-orbitalis, and then out through the upper flap, care being taken that no muscular fibres are included within the loops. The sutures must be drawn tightly, so as to keep the skin in close contact with the cartilage. After the operation, cold-water dressing is applied for twenty-four hours, and then all dressing is left off, the eye being merely bathed frequently with tepid water to prevent the formation of crusts. The sutures should be removed on the third, or, if necessary, on the second day. The wound usually heals by first intention.

Dr. Hotz states that the immediate effects of the operation in all of the forty-six cases operated on, were complete removal of the entropion and great improvement in the appearance of the lids, and that these effects became more obvious with the lapse of time. The first case on which it was tried was one in which a previous operation by Arlt's method had failed to relieve the entropion, although it had shortened the lid so much that the patient was unable to close the eye. The effect was most satisfactory, and Dr. Hotz claims that it is precisely in these desperate cases that the operation achieves its most brilliant triumphs. As a result of the firm union obtained between the skin and the cartilage, both move as one piece; the movements of the lid are entirely free, and the eyelashes are as much everted when the eye is open as when it is closed. Even should contraction of the conjunctiva subsequently occur, and cause the edge of the cartilage to curve in, Dr. Hotz believes that the increased tension of the skin thereby produced would counteract any effect the incurvation could have on the direction of the eyelashes. The operation may, if necessary, be combined with additional measures, such as grooving of the cartilage, canthotomy, or incision along the free edge of the lid, and any redundant skin can, if desired, be removed at a later period. As a rule, it is better to operate on only one lid at a time for fear of too violent a reaction.—*Archives of Ophthalmology*, July, 1879.

AMPUTATION OF THE BREAST.—Dr. B. W. Richardson's particular fondness, says a correspondent of the *Louisville Medical News*, is removing diseased breasts, and he has a large practice in this line. He does the operation with serrated scissors, having frozen the parts with ether spray. He uses no water on the wound, wires it together, covers it with styptic collod. bandages the arm down, to insure rest, puts his patient on her feet, never to bed, lets her ride and walk as much as she chooses, and eat what she pleases. In eight or ten days he removes the dressing, and generally finds the wound healed, and his success is almost invariable. Dr. R. holds the germ theory to be all nonsense, and carbolic acid he considers a bad-smelling sham.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 1, 1879.

THE ETHICS OF CONSULTATIONS.

THE danger of interference between physicians, while rendering professional services, is so great that the most stringent rules are laid down to prevent it. But that these are none too strict, every medical man who is brought much in contact with his professional brethren can attest. Particularly is this the fact with regard to the relations toward each other which should be maintained in consultations. Either the ethics of the profession are not sufficiently explicit upon this subject, or the greater number wilfully violate its provisions, for certain it is that there is need in many quarters for a rigid enforcement of discipline. Consultations are held at the instance of the patient or his friends, or at the suggestion of the regular medical attendant, or both. In either event the position of the consulting physician or surgeon is obviously a delicate one. Whether or not he is really better informed than the gentleman in charge of the case, the very fact of his being called at all removes, generally speaking, all doubts, at least in the mind of the patient, of his eminent fitness to give counsel and aid. The more critical the case, the more eagerly do the friends of the patient coax themselves into the belief of his superior qualifications. The attending physician, even if he knows that such a belief is without foundation, so far tacitly agrees with the convictions of the patient that he does not, as a matter of courtesy, strive to overthrow them. The consulting gentleman is thus admitted to the case with a hearty endorsement of all who are most concerned in the proper management of the case, and may, if he is not exceedingly careful in what he says or does, damage very much the estimation in which the family physician is deservedly held. The real purpose of extra advice in difficult cases is to aid the sufferer directly and the attending physician indirectly, the party consulted being only instrumental to that end. If this

fact were thoroughly understood and appreciated, a great deal of misunderstanding, and much bad feeling among different members of the profession would be prevented.

It is a matter for congratulation that the number of those who wilfully violate the trusts imposed upon them is small; but, on the other hand, the unintentional sinners are very numerous. Of the former, then, we need not speak; they are past reformation, and should be left to the full fruition of their dishonest, unmanly, and wicked practices. But to the latter class there is much to be said that may be productive of good.

One of the main causes of evil-doing on the part of this special class is a want of caution in their actions before the patient, based upon a false appreciation of their rights. They seem to forget that the absolute rights of a consulting party are far from being many. In fact, they are so few that it seems strange that they should not be known. As before remarked, the real office of the consulting medical man may be summed up under two heads: 1st, advice to the attendant calculated for the greatest good to the patient directly, and the cause of science indirectly; and 2d, a policy which shall tend to strengthen the confidence of the said patient or his friends in his medical adviser. Beyond this, under ordinary circumstances, he cannot go without endangering the good standing of the other practitioner. In order to fulfil his obligation properly, the only necessary communication with the patient should be during the consultation, and always in the presence of the regular adviser. This is the general rule, to which there is perhaps but one exception—and that is, when the party calling the consultation fails from one cause or another to meet his engagement. Then, after waiting a reasonable time, the consulting gentleman can examine the patient alone; but he should, under all such circumstances, give his opinion in writing only, and under seal. Those gentlemen who do the largest consultation business in our cities make it a rule, that is almost absolute, never to communicate directly with the patients or friends at the conclusion of the consultation, except it be necessary to endorse the physician in attendance. There is really no necessity for doing anything further. Every explanation that it is requisite to make is left to the regular adviser, and if the patients have the confidence in him which they should, they cannot doubt but that he will candidly state to them any new facts of importance which the consultation may have developed. On the other hand, if a consulting party thoughtlessly places himself in a position to be plied with questions, he is very sure, contrary to his best intentions, on some point of trivial importance, to be diametrically opposed to the party with whom he has been consulting. Any one must be more than ordinarily acute, who, giving positive answers to such interrogatories, will not differ

with another on some point. This being the case, it is obvious that the attendant is the most proper person to reconcile the trivial differences of opinion. Some consultants, in the absence of any agreement with the physician or patient to the contrary, are quite unwilling to understand that their services should cease with the first visit. We have known of some gentlemen who have so far forgotten common courtesy to the attendant, that they have not only continued to attend upon the case, but virtually taken such charge of it as to suggest on their own account the proper times of meeting. Such a course is not allowable, even if the patient's friends make a request to that effect, unless the physician fully agrees to the measure. If he cannot so agree he seriously compromises his self-respect by remaining in attendance any longer. But there are cases in which such a necessity may clearly exist, and which every right-minded person will not fail to appreciate; they are, in a word, such as require special surgical treatment, in the shape of operation, etc. The consulting surgeon, under such circumstances, becomes principal, inasmuch as he gives an entirely new direction to the case, and is responsible for the immediate effects of any particular operation. He is supposed to know best when the patient should be seen, and it is properly his duty and privilege to make his suggestions accordingly. But, when all the immediate danger is past, it is equally his duty to retire at once.

Again, there is sometimes a very free interpretation of the clause in the code of ethics regarding attendance upon such patients as have been previously under the care of another practitioner. Generally speaking, it is sufficient for the patient to state that he has concluded to change his physician, to make it warrantable for another medical man to give his services. This is a rule which has long ago been sanctioned by custom, and cannot be altered. The patient has a right to change his physician if he so pleases, and, having notified him to that effect (after having, of course, paid the bill), is under no more obligations to him. Any physician who would refuse to accept such a case would manifest a species of transcendental fastidiousness that could hardly be appreciated by the most upright member of the Medico-Historical Society. It is another thing, however, when a gentleman is called after having, during the same illness, attended the case in consultation. Under such circumstances he is bound, in honor, invariably to decline having any further thing to do with the case. As it is to be presumed that through the practitioner he became known to the family—that the same practitioner, perhaps, gave him his reputation—he must not in any manner supplant him. If the latter did not actually occur sometimes, it would appear almost like an insult to honorable men to refer to it as a possibility.

In regard to consultations with specialists, the same rules hold good. There does not generally seem to

be any necessity for wrong-doing on the side of the specialist, as such cases as require treatment at his hands are readily and generously delivered up to him. Viewing the subject then as a whole, there would seem to be no reasonable excuse for misunderstanding as to what is just in the premises. The code of ethics is very explicit in its interpretation of the rights of each, and if that is not at hand, every one can easily and safely apply the Golden Rule in its stead.

If always actuated by its teachings, there would never be room for misunderstandings in our professional intercourse. In view of the great importance of frequent consultations, this is an end for which we should hopefully and patiently pray.

LARDACEOUS DEGENERATION.

THE recent debates on this subject, at the London Pathological Society, have deservedly excited very considerable interest. There are not a great many questions in general pathology which appeal strongly to those not specially engaged in this work. Lardaceous degeneration, however, is so important and as yet incompletely understood a lesion, that a prospect of further light upon it may naturally excite a good deal of curiosity. It is, of all the degenerations, the most severe in its reaction upon the general system, and is second only to fatty degeneration in extent and frequency.

It cannot be claimed that the debates referred to satisfied more than the most moderate expectation, for there was only one important and definite outcome of the two nights' discussion. Much was done, however, to show the importance of the subject and the points that especially need further study.

Since the early idea that amyloid material was really an amyloid, that is, a hydrocarbon, was disproved by the analyses of Kekulé and C. Schmidt, the effort has been made to discover which of the albuminoid substances it resembled most. By finding this, its origin, it was thought, might perhaps be traced. Some progress has certainly been made in this direction, although one very essential point in the study does not seem to have been as yet accomplished. We refer to the complete and perfect isolation of the material itself. The characteristics of the substance are its peculiar reaction with iodine, its deficiency in potash salts, its insolubility in the gastric juice and in water, and its tendency to attack the blood-vessels. Now there are a number of albuminates which have more or less of these characters. Thus even the reaction with iodine occurs with acidified albumen and casein. In nearly every respect, however, it resembles most closely de-alkalinized fibrin. And this conclusion, now pretty well established, confirms a previous very plausible but not well-established hypothesis. For the fact that the degeneration, or infiltration, as some prefer to call it, first attacks the capillaries and arterioles, had led naturally to the be-

lief that the blood was the source of the morbid action; but the uniform failure to discover any traces of the amyloid substance in this fluid, as well as the peculiar manner in which it singled out only special organs for its attack, caused doubts about such an origin. These may now be quite confidently set aside. And on the whole, the most rational conclusion in regard to the nature of the amyloid material is, that it comes from the blood, and represents a defect in the nutritive changes in that fluid. It is a case, in fact, of incomplete or perverted metamorphosis. It may be asserted of this theory that it is not only a rational, but a fashionable one. The idea of asserts or perversions in the metamorphic process is now affording a happy explanation of a good many pathological phenomena.

With regard to less abstruse points in the subject debated, we find that a very positive as well as practical conclusion was reached in connection with the etiology of the disease. Dr. Dickinson, decidedly the best authority on the matter, claimed that the cause could be traced in every, or nearly every case, to syphilis or suppuration. This throws out a long list of occasional causes heretofore given, such as cancer, malarial poisoning, alcoholism, etc. Dr. Dickinson's assertion was well sustained, and pretty generally agreed to. If firmly established, it is a most important advance in our knowledge of the disease.

Although waxy degeneration may be cured in its earlier stages, it has always been thought entirely intractable when well advanced. It induces an atrophy and fatty degeneration of the tissues about it. When seated in the kidney, it is, in this country at least, always accompanied with a diffuse nephritis. Nevertheless, cases were related to the Society which serve to prove that even in the worst stages there may be retrogression and cure of the disease; and this not only in syphilitic, but suppurative cases. In one patient a liver, which reached nearly to the crest of the ilium, was reduced to its normal size; in another, a child in apparently the last stages of chronic albuminuria was restored to comparative health. No especially new remedies were used to secure these results. On theoretical grounds, liquor potassæ is recommended, but it is not efficacious unless combined with tonics and cod-liver oil, and there is room for the belief that the tonics and oil are the chief agents. Indeed, pathological investigations have not as yet much advanced the therapeutics of the disease.

PHYSICIANS' VACATIONS.—Much has recently been said about the necessity of vacations for physicians, but Dr. and Mrs. Ducat, of Highbury, England, have taken one. After putting themselves in training by a series of preliminary walks, they travelled on foot through Switzerland and along the Rhine for three weeks. They saw, it would appear, almost everything, and all for forty pounds. Their example is commended to the rest of the profession.

Reviews and Notices of Books.

MANUAL OF THE PRINCIPLES AND PRACTICE OF OPERATIVE SURGERY. By STEPHEN SMITH, A.M., M.D., Surgeon to Bellevue and St. Vincent Hospitals. New York: Houghton, Osgood & Co. 1879.

THIS is a rather closely printed, profusely illustrated royal duodecimo volume of 698 pages. It covers so large a field that the limits of our space forbid criticism in detail, and we shall therefore confine our notice to an examination of the general plan, in order to show the scope and character of the work, and to a minuter criticism of one or two subjects to show the manner in which the work has been done.

The central idea, as indicated in the preface, rests upon the legal obligations of a surgeon, and "it has therefore been a constant effort to give to the text the highest degree of authority, by embodying the teachings of recognized authorities on every subject, *so far as they conform to what is believed to be the present standard of surgical opinion and practice.*" (Italics our own.) If by this it is meant that the book is to be considered a medico-legal authority, and that compliance with its teachings, like the possession of a diploma in some countries, will throw the burden of proof upon the plaintiff in a malpractice suit, we cannot but think the design as illusory as the execution is defective. The error in the design is contained in the lines we have italicized, for only such teachings are accepted as coincide with the author's views, and only those teachers are considered as authorities whose utterances receive similar approval. The work, therefore, does not differ in this respect from any other similar treatise: it derives its authority solely from its author; and his indorsement, valuable as it is, is not sufficient to give any opinion the character of a final judicial decision.

The defects of execution are manifested in several ways, and while the allegation in some of them depends merely upon a difference in opinion between Dr. Smith and the reviewer, it will in others, we think, be accepted as correct by all. The citation of authorities is confined to the simple mention of the name of the individual without a single reference to the page, or even the book in which the opinion is to be found; the only guides even to the legal opinions and decisions are the names of the judges or of the parties to the suits. For legal purposes, therefore, they are almost valueless, because they offer no means of verification, and for practical purposes they are so incomplete that the practitioner must in many cases be unwilling to be guided by them, for he knows neither the considerations upon which they were based, the modifications they are subject to, nor even the date at which they were held. Moreover, some of them are evidently taken at second hand. These references are a prominent feature of the work; a count of those in the first fifty pages shows an average of more than three to a page, or over two thousand for the entire book. In spite of their number, we miss some that we might reasonably expect to see among them, and we find others that are simply trivial. For example: under amputations no reference is made to Cardin; in fact, no mention is made even of the long anterior flap, although that method is in daily use, and is sanctioned by such authorities as Lister, Holmes, and Erichsen; under amputation at the hip-joint no reference is made to Verneuil, although he is the inventor of a method that has proved successful, and

is the author of a recent and valuable paper upon the subject; under amputation at the knee, the only reference is to a maker of artificial limbs, an omission which, taken in connection with the fact that the only method described for amputating at this region is one introduced by Dr. Smith himself, throws a singular light upon his estimate of what is "the present standard of surgical opinion and practice." The general rules introducing the subject of excision of joints are fortified by only two references: one of them to Prof. Bigelow in support of the assertion that it is well to "preserve a useful hinge-joint at the elbow," the other to Hüter in support of a similar statement concerning the knee—the triteness of the one being equalled only by the impracticability of the other. No mention is here made of either von Langenbeck or Ollier, and yet one of the three divisions of the subject, that concerning the time at which excision should be performed, contains a recommendation of immediate excision, which is in direct opposition to the teaching of both these recognized authorities. Finally, in justification of our assertion that some of the references—we do not mean the statements—are simply trivial, we may refer to the one to Prof. Bigelow, just quoted, and to the following, taken almost at random from pages 15, 17, 50, and 325: "Foul air, filthy dressings, indigestible food, will thwart the best planned and executed operation."—*S. D. Gross*. "Excessive bleeding, due to defective measures for its prevention, is culpable negligence."—*F. Esmerch*. "Thermometry . . . is an important mechanical aid in diagnosis."—*A. L. Loomis*. "The best general rule for its application (that of a roller bandage) is as follows: It should be done quickly, without pain, with ease, and with elegance."—*Hippocrates*.

The scope of the book is far wider than one would expect, and the diversity of the subjects treated in it, and the manner of treating them, bring it into the class of surgical text-books, rather than into that of operative surgeries. Thus, to take the first two extreme examples that present themselves, we have, on pages 497 and 498, rupture of the kidney, the treatment to be rest, opium, and quinine; and on pages 288 and 294, inflammation within the cranium, with a full account of its pathology and symptoms, and no recommendation of operative interference beyond blistering and venesection. It seems to us that this fulness is only justifiable when the space for it is not obtained by slighting other parts, for the book is offered as a manual of operative surgery, and foreign matter should not be brought in to the exclusion or insufficient consideration of topics which are properly included in that title. The composition of the work is compact, and the type is not large, but it contains only 700 medium-sized pages in which space is further taken for 733 illustrations and 2,000 references in foot-notes. Nearly 50 of the first 80 pages are given to the following six subjects: The Obligation, Examination, Preparation, Emergencies, Repair, Cicatrization. These are followed by 30 pages on fractures, and it is not until the 111th page that the real subject-matter of the book is reached in general operations on the bones. At the 147th page a new digression begins, and 20 pages are given to dislocations and the diseases of joints. One-fourth of the book has been gone over, and the only operations described have been those for the resection of the different bones. In the remaining portion of the book the longest absences from the track that we have noted are 9 pages on injuries to the muscular system, and 11 pages on compensative appliances

(artificial limbs, etc.); but shorter lapses are frequent, and we think we are speaking within bounds in saying that more than one-third of the book is given up to subjects that do not strictly or properly belong in it, and the treatment of which is necessarily so scanty and superficial in most cases that the reader will be compelled to refer to other treatises for the needed information. This is only equivalent to saying that the book is not a satisfactory text-book upon general surgery; and although it may be claimed that it is not a general surgery in title, it certainly aims to be one in subject-matter.

Let us now see if the condition which we mentioned as offering, in our judgment, the only justification for this introduction of extraneous matter, is complied with. The number of pages allotted to each subject offers a ready, if somewhat rough, means of indicating the consideration each has received, and incidentally supports the assertion, made apparently with pride in the preface, that no "stereotyped" (that is, systematic) method has been followed. The following subjects have each been given one page: corns, boils, carbuncles, amputation of arm, forearm, thigh, at the elbow, and at the knee; hypodermic injection, 1½; fistula in ano, thermometry, rhinoplasty, and amputation of the leg, 2 each; amputation at the hip, 2½; the nails, 3; harelip, 3; acquired defects of the lips, 6; cæcum, 4; colon, 5 (without mention of inguinal colotomy); the rectum (exclusive of hemorrhoids and anus), 11; lungs, 6; larynx and nasal fossæ, each, 12; ligation of arteries, 36; operations on the bones, 86, and on the joints, 24; and, finally, the principles of amputation and of excision of joints are disposed of in 6½ pages and half a page respectively. The last-named subject is treated under three heads—the indications, the time at which excision should be performed, and the method of operation. The only indications mentioned are gunshot wounds, compound dislocations, and progressive caries, to the exclusion of unreduced dislocations and ankylosis, although under ankylosis of the elbow, on page 642, he recommends excision, adding: "The steps of the operation are the same as for caries, except that a triangular piece of bone must be removed at the seat of the old articulation"—a statement which entirely ignores the radical differences in the method imposed by the immobility of the joint, and the recommendations of his own authorities as to the amount of bone that should be removed. Under the *method*, we have only a brief statement (12 lines), in general terms, of what the operator should aim to accomplish, but not a word as to the manner in which it is to be done—a treatment of the subject which, might be proper in a general text-book, but which is inexcusable in an operative surgery.

To take another example: ligation of the common carotid is described clearly and with sufficient detail in 2½ pages, while the more difficult and dangerous ligation of the external and internal carotids near their origin is described, with their anatomy, in less than half a page, and that of the external carotid above the digastric in 9 lines, of which 4 are given to its anatomy and 5 to the operation. In both cases the anatomy is descriptive rather than surgical, and lacks precision.

In the light of such descriptions and such treatment of the subjects, what are we to think of the statement in the preface that the lofty ideal there described had been constantly borne in mind, although manifestly unattainable?

To summarize our objections: Dr. Smith has at-

tempted to cover too much ground, and has therefore been compelled to treat most of his subjects incompletely. The numerous references are too indefinite to have much value; they abound where they are not needed, and are absent where most required. The treatment of the different subjects is uneven; many of them are treated exceedingly well, and the operative method given with sufficient detail, but in others the description is so brief that the practitioner would get little or no help from it. It seems as if the author had lost sight of the fact that he was writing for men whose knowledge and experience are less than his own, and had consequently omitted many directions which he would not need, but which they would find essential. The language is well chosen, and the composition simple and direct.

CLINICAL MEDICINE: A Systematic Treatise on the Diagnosis and Treatment of Diseases. Designed for the Use of Students and Practitioners of Medicine. By AUSTIN FLINT, M.D., Professor of the Principles and Practice of Medicine and of Clinical Medicine in the Bellevue Hospital Medical College, etc. Philadelphia: Henry C. Lea. 1879.

This book contains nearly 800 pages, and is the work of one of the oldest medical teachers and most accomplished medical writers in this country. Its author states that the plan of the work and the arrangement of diseases have been made with special reference to clinical medicine. In order to give the reader a fair idea regarding the scope of the volume, it must be stated that we find, first, an introduction in which are given modes of examining patients, methods of making clinical records and reports, and a general review of the subject of diagnosis as embracing general symptomatology, the use of the sphygmograph, the thermometer; also a study of the objects, ultimate and immediate, in treating cases of disease, and a chapter on the professional conduct of physicians toward their patients. Second, we notice that this book is divided into six sections. The first section is devoted to diseases of the respiratory system, and consists, first, of preliminary observations on symptomatology and physical signs, and, second, of remarks on the diagnosis and treatment of diseases of the respiratory system. The diseases which are considered in this section are: 1. The inflammatory diseases of the respiratory organs within the chest, including acute pleurisy, pneumonia, bronchitis and their varieties; 2. Chronic inflammatory diseases, including chronic pleurisy, empyema, and pleurisy with pneumothorax; 3. Structural diseases, including pulmonary emphysema and its varieties, pulmonary gangrene, carcinomatous and other tumors, etc.; 4. Functional diseases, such as hydrothorax, asthma, bronchial hemorrhage, etc.; and, 5. Diseases of the larynx. The author tells us that he has, "as far as practicable, arranged the diseases by grouping together those of which the diagnosis involves differentiation from each other." This fact explains the appearance, under the several headings in the sections, of diseases which properly belong elsewhere.

In this section we notice the author speaks of empyema as a disease that is "generally *acute* at the outset, but becomes chronic." In that respect he differs with some of our recognized authorities upon this subject. Acute miliary tuberculosis appears under the head of chronic inflammatory diseases of the respiratory organs of the chest, although the author regards it as a "constitutional affection," and one that may "not be inappropriately considered as an essential fever."

The subdivision, "Structural Diseases of the Respi-

ratory Organs within the Chest," includes a class of affections which, in general, involve appreciable changes of structure without inflammation as an essential condition. At first, the heading was confusing; but, when coupled with the definition in the text, it is easy to understand the meaning of the author. The suggestion then is that the heading should receive an explanatory word. Another suggestion which your reviewer offers is, that the well-known views of the author regarding the essential nature of certain pulmonary affections would have warranted him in placing those diseases in a separate chapter, having an independent heading descriptive of the special views entertained. For example, diseases of the respiratory organs, essentially fevers.

In the second section, diseases of the circulatory system are considered. We notice, first, the preliminary observations on the symptomatology and physical signs of cardiac disease, and symptoms and signs referable to vessels; and, second, the diagnosis and treatment of diseases of the circulatory system. The diseases considered in this section are: I. Diseases of the blood; II. Inflammatory diseases of the heart; III. Structural diseases of the heart; IV. Functional disorders of the heart; and, V. Diseases of the vessels. This section has a classical appearance, and is a valuable digest from the pen of one of the masters in physical diagnosis.

The third section is devoted to diseases of the digestive system, and has the same general arrangement as that seen in the preceding sections. In the fourth section the author considers the diseases of the urinary system; and in the fifth section, the diseases of the nervous system. The fifth section occupies the largest space, and in it is included the consideration of mental affections. The sixth section embraces the consideration of fevers, continued, periodical, and eruptive, and other general diseases.

On page 684, under the heading "Prevention of Typhoid Fever," there is an intermingling of sentences relating to causation by means of drinking-water and by breathing air containing effluvia from decomposing human fecal excrement, that is striking, and especially so in the light of the author's uniform clearness of expression.

We confess we are not a little disappointed regarding the general scope of this work. It does not possess the value we had expected to find when we compare it with the author's excellent treatise on "The Principles and Practice of Medicine." We cannot help believing that, had the author expended the same amount of labor in enlarging and perfecting his valuable treatise with which the medical world is already familiar, he would have rendered the medical profession a greater service and would have earned for himself a more enduring fame than that which will arise from his work on "Clinical Medicine."

The intrinsic value of the book has not been overlooked while offering the above criticism.

THE NATIONAL BOARD OF HEALTH.—Dr. Turner, Secretary of the Executive Committee, sent in his resignation as member of the Board. It was not accepted, but he has been given thirty days' leave of absence.

The *Bulletin*, which has been edited by Dr. Baillache, and temporarily by Dr. Stephen Smith, has been, by resolution of the Executive Committee, placed under the direction and supervision of Drs. Billings and Turner.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, October 16, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M. by the President. The minutes of the last two stated meetings were read by the Secretary, DR. H. T. HANKS.

The President introduced to the Academy Dr. Lee, of Oswego, and Dr. Bunn, of China, and invited them to take seats upon the platform.

LIBRARIAN'S REPORT.

The Librarian, DR. LAURENCE JOHNSON, reported that, since the last stated meeting in June, there had been donated to the library 900 bound volumes and over 4,000 unbound volumes and periodicals. Special mention was made of a complete set of bound volumes [110] of the *London Lancet*, from 1823 to 1876, presented by the President; 54 bound volumes of their own publications, by Messrs. D. Appleton & Co.; 868 bound and 502 unbound volumes, devised to the Academy by the late Dr. Henry S. Downs, a Resident Fellow; an autograph letter of Sir Astley Cooper, presented by Dr. Wm. Detmold; 64 bound volumes, presented by Dr. E. S. F. Arnold, of Newport, R. I.; 22 volumes of the *Natural History of the State of New York*, donated by Dr. J. G. Adams; the library of the New York Dermatological Society, presented by the society; 1261 Medical Journals, presented by Dr. C. W. Bernachi; 143 bound volumes, by Dr. J. H. Douglas; and an additional instalment of his library on cholera, by Dr. John C. Peters.

DR. S. S. PURPLE announced the presentation to the library, by Dr. Abram Du Bois, of 550 bound volumes, which were donated at a cost of \$1,318.28.

On resolution offered by Dr. Purple, the thanks of the Academy were tendered to Dr. Du Bois for his munificent donation.

Dr. Purple also announced the reception of a check for \$200 from Mrs. John Jacob Astor, to be expended in the purchase of books for the library.

On resolution offered by Dr. Purple, the Academy extended a vote of thanks to Mrs. Astor for her generous donation.

On motion made by DR. PIFFARD, a vote of thanks was extended to Messrs. D. Appleton & Co. for their donation to the library of the Academy.

On motion made by DR. JOHNSON, the thanks of the Academy were tendered to the Dermatological Society for its donation to the library of the Academy.

On motion made by DR. HUBBARD, the thanks of the Academy were extended to the President for his gift of the marble bust of Mr. T. Spencer Wells, the presidential chair and table, the Secretary's table, and the reading-table.

On motion made by DR. PURPLE, a vote of thanks was tendered to Mrs. Fanny C. Hartley, a daughter of one of the founders of the Academy, the late Dr. White, for a donation of \$200.

On motion made by DR. WM. T. WHITE, a special vote of thanks was tendered to the Building Committee, Drs. Purple, Hubbard, and Gouverneur M. Smith.

NON-RESIDENT MEMBER.

The Secretary read the resignation of Dr. John J. Mason as Resident Fellow, and, on motion made by Dr. Detmold, Dr. Mason was elected a Non-resident Fellow.

The next business in order was the lecture, which was given by DR. JOHN C. DALTON, on

CEREBRAL ANATOMY,

attention being directed especially to the anatomy of the corpus striatum.

The anatomy of the brain, said Dr. Dalton, is complicated in its details, but simple in its general structure. It consists of gray and white matter. The gray matter is arranged in two separate divisions, occupying two separate localities: 1. Exterior, convolutions; 2. Interior, cerebral ganglia, the corpus striatum, and the optic thalamus. The white matter is a continuation of the longitudinal columns of the spinal cord. The ascending fibres of white substance were then traced through the medulla, the pons varolii, crura cerebri, internal capsule, and to the fan-shaped expansion, the corona radiata. In the cerebro-spinal system, counting from without inward, there are three distinct deposits of gray matter: 1. The gray matter of the spinal cord; 2. The gray matter of the cerebral ganglia; and 3. The gray matter of the convolutions.

The doctrines now in vogue—even the recent views of Meynert and others, when divested of superfluous nomenclature—regarding the anatomy of the brain, were based upon the general view of three successive deposits of gray matter, connected with each other by three successive sets of white fibres. Of these three deposits of gray matter, the middle consists of the large cerebral ganglia, both of which occupy about the same level.

Dr. Dalton then referred to differences between the corpus striatum and the optic thalamus—the latter, on section, presenting a rather uniform gray tint, and the former showing white fibres arranged in bundles visible to the naked eye, and giving it a striated appearance. The corpus striatum was made up of two distinct parts: 1. Anteriorly, the intra-ventricular portion, or caudate nucleus; and 2. Posteriorly, the extra-ventricular portion, or lenticular nucleus. The optic thalamus was a single ganglion by itself. Of late it had become quite customary to restrict the term, corpus striatum, to its intra-ventricular portion.

He then alluded to the situation of these masses of gray matter with relation to the internal capsule and the crura cerebri, and passed to the consideration of the internal capsule. It could not be seen that the internal capsule was composed throughout of fibres which run continuously from the medulla oblongata below to the convolutions above, but, on the contrary, there was a strong conviction that they were not the same fibres, and that in the passage from below upward there was an interchange of fibres, in the cerebral ganglia, not visible to the naked eye. In a physiological point of view there was no doubt that it was the channel of conduction between the hemispheres and the spinal cord.

Dr. Dalton then passed to the consideration of certain general and specific differences between the human brain and the brains of animals. The general difference consisted in the greater development of cortical substance. The specific differences were two: first, the fissure of Sylvius was double in the human subject, consisting, 1, of a posterior branch, which was simply an elongation of the Sylvian fissure, and

seen in the brain of the fox; and 2, an anterior branch; and between the two there was a triangular mass which was known as the *operculum*, and below them a group of convolutions known as the island of Reil. He then directed attention to the formation of the fissure of Rolando, which was simply a dividing line between the descending and ascending portion of a curve the convolutions made in addition to the double curve formed on the convexity of the hemisphere; to the cuneus, the precuneus, and the paracentral lobule; to the gyrus fornicatus; and then spoke of the special anatomy of the corpus striatum, which was usually described as a gray mass having an enlarged club-shaped extremity, directed forward and occupying the anterior horn of the lateral ventricle, and a cylindrical tail-like prolongation directed backward, and running along the outer edge of the lateral ventricle and terminating somewhere about the posterior end of the optic thalamus. In reality it was much more extensive than that. In fact, the extent of the corpus striatum was almost that of a complete ring encircling the crus cerebri and internal capsule, exactly as did the gyrus fornicatus. That arrangement could sometimes be seen simply by opening the lateral ventricle throughout its entire extent. It had enlargements in its course, and was more or less interrupted by oblique fibres, which came from the *tenia semicircularis*.

The anterior extremity of the corpus was connected with the gray matter of the convolutions at the base of the brain, just in front of the Sylvian fissure; and in a similar way the end of its curved portion was connected with the gray matter at the inferior extremity of the posterior horn of the lateral ventricle, with the amygdala just underneath the lenticular nucleus. In the smaller portion of the corpus striatum the striations were lost. The corpora striata were masses, which correspond in structure exactly with the remainder of the hemispheres.

In the discussion that followed, Dr. E. C. SEGUIN directed attention to two points: 1. The great importance of clearly separating the nucleus caudatus from the nucleus lenticularis. They were almost completely separated anatomically, and the functions of the two parts were distinct. The nucleus caudatus had a more intimate connection with the motor tract than had the nucleus lenticularis.

2. The importance of understanding the true relations of the internal capsule. If any fact had been demonstrated by the help of pathological anatomy, it was that there was a continuous connection, by means of the white matter, between the cortex of the brain and the spinal cord. It was interesting to notice the growth of opinion relative to the physiological importance of the internal capsule, the nucleus caudatus, and the nucleus lenticularis. There were competent observers who doubted whether hemorrhage into the lenticular nucleus was a cause of hemiplegia. Charcot was of the opinion that the hemiplegia was produced by the pressure exerted upon the internal capsule. If the lesion destroyed the anterior portion of the internal capsule, motor disturbances followed; if the lesion was in the posterior portion, sometimes distinct motor symptoms were developed, but most prominently sensory disturbances upon the opposite side.

Dr. E. G. JANEWAY referred to a case which threw doubt upon the belief that destruction of the posterior part of the internal capsule always produced hemianæsthesia. In a case of hemiplegia the leg almost entirely recovered, the arm remained a trifle stiff, but possessed considerable power, and there was

no anæsthesia. The patient died a year and a half afterward, and it was found that the lesion involved the entire posterior two-fifths of the caudate nucleus, all the internal capsule between it and the lenticular nucleus, besides producing well-marked atrophy of the lenticular nucleus and anterior part of the optic thalamus. With reference to effects produced by lesion in the lenticular nucleus, he referred to a case, in which a tumor was limited to that region, was not capable of producing much pressure on surrounding parts, and yet the symptom was simply aphasia, with a certain kind of dizziness having no special significance. He had also seen a case in which the lenticular nucleus was the site of an old cyst, which produced persistent aphasia. How explain the aphasia?

Dr. WM. H. WELCH said that the valuable contribution of Dr. Dalton to the anatomy of the corpus striatum proved that there was still room for work in the topographical anatomy of the brain. The statement of Dr. Dalton, concerning the termination of fibres of the internal capsule in the basal ganglia, needed modification, since the researches of Flechsig had shown that the fibres which convey voluntary motor impulses from the central convolutions passed through the posterior third of the internal capsule, without terminating in the caudate or the lenticular nucleus. This discovery was in opposition to Meynert's theory of the three projection systems. Dr. Janeway's case of absence of anæsthesia with a lesion of the posterior part of the internal capsule, was rather in accord with Flechsig's views than with those of Charcot, who placed the motor fibres in the anterior two-thirds of the internal capsule.

Notwithstanding Meynert's brilliant investigations, the purely anatomical methods, while they taught us the topography of the brain, had given us very little certain information concerning its inner architecture—that is, the course pursued by nerve-fibres and the connections between the different nerve-centres. For a knowledge of these most important relations we were to look also, in the future, to embryology, comparative anatomy, pathology, and experimental physiology. Flechsig's embryological researches and the experiments of Gudden on young rabbits were referred to. Comparative anatomy might be expected to give important information, after the homologies between the different parts of the brain of man and those of the lower animals had been more clearly determined than was yet the case. But caution was requisite as regards applying directly to man the observations made on the nervous system of the lower animals, since it had been shown that the pyramidal-fibres, for instance, occupy very different parts of the spinal cord in different animals. As a basis for the study of the localization and of the connections of nerve-centres and of nerve-fibres, an accurate topographical anatomy of the brain was indispensable.

Dr. W. A. HAMMOND, on invitation, remarked that it was held by neurologists in general that lesion in the optic thalamus was followed by temporary paralysis upon the opposite side and hemianæsthesia; that a lesion confined to the intra-ventricular nucleus gave rise to transient hemiplegia upon the opposite side, with derangement of sensibility; that a lesion involving the extra-ventricular nucleus also produced transient hemiplegia upon the opposite side; that a lesion involving the anterior portion of the internal capsule produced permanent hemiplegia upon the opposite side, much more so than lesion involving either the corpus striatum or optic thalamus; that a lesion involving the posterior two-thirds of the

internal capsule produced permanent paralysis, hemianæsthesia, and permanent contraction of the muscles. He thought that when contractions of the muscles came on later they were not cerebral in origin, but depended upon secondary degeneration of the spinal cord.

DR. DALTON replied to Dr. Welch, who thought that we should look for the most permanent advancement in our knowledge of the brain in pathological observation and physiological experiment, because so little real information had been obtained by purely anatomical investigations, and did so with the greatest respect for his opinion, by entering a protest against this view, for the reason that too much had already been done in that direction. For example, a section is made directly through certain nerve-fibres and certain effects are produced upon distant parts, and immediately we deduce anatomical facts from physiological experiment—a method of reasoning which he believed was entirely wrong. The same was true with regard to pathology. For example, a tumor in a certain portion of the brain is associated with symptoms produced in a certain part of the body, but it was impossible to say that nerve-fibres extended from the first place to the second. He thought one of the faults that had been committed was conducting purely anatomical investigations of the brain by means of physiological experiments and pathological observations. Both had their distinct values.

DR. E. C. SPITZKA, on invitation, spoke of the development of the corpus striatum in the lower animals, and also in man, and said that he had found the portion most posterior, to be composed more of neuroglia and atrophic elements, than of real ganglion tissue. With regard to Dr. Dalton's interpretation of the amygdala, he thought it would bear further investigation. He also thought that the results obtained by Flechsig, referred to by Dr. Welch, had been overrated, for F. had so confounded anatomical parts that his opinion could not be regarded as one having very great value. He then spoke regarding the striated appearance of the corpus striatum and the arrangement of the convolutions.

DR. WELCH remarked that he placed physiological experiments as the least valuable, of those mentioned, as a means of research. He thought, however, that experimental physiology and pathology had been of no slight service, inasmuch as they had taught us the location of psycho-motor and psycho-sensory centres, in the cerebral cortex, and the course of certain groups of important nerve-fibres in the brain and the spinal cord.

The Academy then adjourned.

Correspondence.

"THE DISCOVERER OF ANÆSTHESIA."

THE CLAIMS MADE FOR DR. LONG CRITICISED.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—On the occasion of the presentation in connection with the subject embraced in the above title, of the double portrait of Drs. Long and Sims to the Legislature of the State of Georgia, an event described in a late issue of the Record, a distinguished speaker* is quoted as using the following words: "It so happens that we are indebted mainly to Dr. Marion Sims . . . for the final and almost unquestioned recognition of Dr. Long as the real discoverer of anæsthesia."

A statement, grave and unjust as this is, and emanating from an authority* as high as apparently misinformed, merits a notice, not yet, now for two years, accorded from any source to the senator's informant. But filial if not indeed abstract duty now demands a word. Under these circumstances, Mr. Editor, will you kindly allow me, uninviting and ungracious as the task of controversy may be, and reluctant as I am to see its inherited shadow even, falling in my direction, a brief space for a passing memorandum.

In 1849, three years after the practice of anæsthesia by sulphuric ether began and became universal as a result of the Boston revelation of 1846, Dr. Long, above referred to, for the first time in print, or writing, or otherwise publicly, made the tardy statement† that he had experimented with ether twice in 1842 and three times subsequently in as many successive years. Curiously enough, in this communication Dr. Long records not alone that he "used ether"—a fact which no one would wish to deny—but in the same moment, also, that he did not use it in a manner or to an extent satisfactory in its results either to himself or others. This, indeed, might be inferred from the facts that in the course of the four years over which his experiments extended, no one else used ether, and that neither then nor later was ether used because he had used it, or from any knowledge of his five experiments. But it is more convincing to find the confession that, as we shall see later, his experiments were total failures, and finally abandoned, recorded in his own language. Very naturally, Dr. Long's statement passed unnoticed at the time it was made, both because it had no bearing upon the events of 1846, because the medical world contemporaneous with the period of his alleged experiments, 1842–46, had no knowledge of the existence of any practice of anæsthesia, and because, as we have said, his experiments covered no more than the technical claim of a "use" of ether—confessedly unsuccessful. It is more than probable, indeed, that this after-clap statement would never have seen light but for the world-wide fame which greeted the discovery of 1846. Dr. Long was only one of dozens who were stimulated at that time and later to relate past experiences and experiments with anæsthetic agents, any one of whose narrations could to-day be made to serve the same purpose that Dr. Long's account is now being made to serve.

Almost nothing further was heard of Dr. Long's tardily-recited experiments until 1877, when they were resurrected by Dr. J. Marion Sims and made the peg on which to hang a claim to the whole discovery, and designate their author "discoverer of anæsthesia"‡ This claim made for Dr. Long in 1877, unjust, sophistical, and Quixotic as it was, extended to limits unauthorized by anything that Dr. Long ever wrote, and garnished by incidents and statements demonstrably false, has remained unanswered up to this moment. But your account of the proceedings in the Georgia Legislature indicate that the motives for silence have been mistaken, that silence has been misconstrued into consent, and that squatter rights have grown by default of contradiction into a sense of quasi-proprietorship. It is indeed true that Dr. Long's "claims" have not been questioned. The scientific world, which has long since regarded this controversy as settled, is not usually roused into contradiction or questioning by the adventurous title of "discovery" applied to a short half-dozen of crude, unnovel, isolated, unannounced.

* Senator Gordon.

† Southern Medical and Surgical Journal, Dec., 1849.

‡ Virginia Medical Monthly, May, 1877.

fruitless, and abandoned experiments attached as an after-thought to a great discovery. And, because unquestioned, it by no means follows that any "final recognition" of them exists, unless, indeed, it is the proceedings attending the presentation of the dual portrait alluded to. Beyond this it is not known that the claims set up for Dr. Long have been in the slightest degree recognized. And it is, perhaps, a little hasty to assume that the Legislature of Georgia can make a recognition final upon the testimony of one witness whose evidence has not been questioned even. Such judgments are usually rendered after hearing both sides of a case, and that not from the mouth of a single advocate. Legislative snap judgments of this nature can scarcely do less than reflect upon the integrity of their authors.

The limits of a memorandum forbid any further allusion to the presumptive and historical evidence against the claims made for Dr. Long. We pass on to evidence of fact, first noting a certain ambiguity in the terms "discovery of anæsthesia," favorable to the after-crop of "discoverers" which usually follow in the wake of a great discovery. In the word anæsthesia exists two meanings: the abstract fact or law of insensibility to pain, however induced or occurring, *i. e.*, the science, and the method, process, and practice of inducing this state for surgical operations, *i. e.*, the art. Discoverers find out something which has always existed, but which has not been known. Galvani discovered galvanism, but galvanism had always existed. Inventors combine known scientific or other principles so as to produce something utterly new, *i. e.*, a new machine or process. Now, anæsthesia, the abstract principle, is as old as human observation. It was not given to Dr. Long or any known man to "discover anæsthesia" in this sense. But the practice and the process of anæsthesia was new—the result of a combination of many known scientific factors. It was, therefore, an invention—the invention of anæsthetic inhalation for surgical purposes.

Did Dr. Long make this invention? Before answering this question we will formulate, for the sake of brevity, several propositions bearing upon the origin of the invention. These are:

1. That the scientific fact of a state of insensibility to pain had always been known.
2. That the quality inherent in certain medicaments, whether gases or liquids, and other agents to produce this state, whether by inhalation or potion, or other effect, had equally always been known; it was known, for instance, that the vapor of sulphuric ether caused insensibility to pain, though its use was stated to be attended with danger to life.
3. That what was unknown was the application to the surgical needs of humanity, of the process of inducing anæsthesia, an application demanding demonstration, not only of its possibility (a fact which was known), but also of its possibility in a safe, certain, efficacious, in short, available manner. Such a demonstration and application required the use of any known medicament to an extent (if ether, of stupor), and in a manner up to that time unknown. It would be essential also to announce this invention.
4. That many individuals had attempted to make this demonstration and application, *i. e.*, invent the anæsthetic process.
5. That demonstration and application to human affairs constitute the sole basis to a tenable claim to the invention or "discovery of anæsthesia," for one reason among others, that all else was known to modern times, *i. e.*, the conception or abstract idea

of anæsthesia, and the intention and attempt to produce it for surgical operations.

6. That this invention was not made until 1846, (a) because all the world agrees that its practice and knowledge of the anæsthetic process began then; and (b) because up to that moment both the word and the practice were unknown to surgery, or to surgical or other literature.

7. That Dr. Long did not make this invention in 1842, or later, *i. e.*, did not "discover anæsthesia" then, or ever.

It is with this latter proposition that we shall at present deal.

As we have seen, the anæsthesia of which we speak, is an invention, a process, an art. And we may confine ourselves to the simple question, who invented it? (We cannot speak of a discovery, when nothing to discover existed.)

Now Dr. Long stated in 1849, that he was "the first to use ether as an anæsthetic in a surgical operation," and this in 1842. Dr. Sims, in 1877, claims for Dr. Long, that "he was the first man to intentionally produce anæsthesia for surgical operations, and that this was done with sulphuric ether in 1842."

But, in doing what Dr. Sims claims for him, Dr. Long did not advance one step beyond the works of many before him. And we allude here to modern times only.

M. Dauriol, in 1832, specifies five cases in which he "succeeded in performing painless operations."

Hickman, of London, in 1828, details a method of "suspending sensibility by the methodical introduction of certain gases into the lungs," during which "the most delicate and most dangerous operations are performed without producing pain in the individuals submitted to them."

Did Dr. Long do more than Hickman, or Hickman more than his predecessors, *i. e.*, fail to establish their process?

Collier, of Louisiana, performed five painless operations upon patients rendered insensible by alcohol. And Esdaille, Haller, Deneux, Blandin, and many others report painless operations.

If the statements just made are true, Dr. Long was not "the first man to intentionally produce anæsthesia for surgical operations." Dauriol, Hickman, Collier, Esdaille, and many besides them preceded him. These men are discoverers just as much as Dr. Long is. This, indeed, disposes of Dr. Sims's claim for him.

But Dr. Long himself says that he was "the first to use ether as an anæsthetic in a surgical operation." Now, the agent employed is perfectly immaterial, whether one vapor or another. The claim of "use" of this or that agent is an insufficient one. The question, of course, is to what extent, and in what manner was ether used. Was it so used as to establish the invention of anæsthesia? Aërial navigation is to-day a chimera. But the man who makes travelling through the air as practicable as Fulton made steamboat travel, or as Morse made telegraphy, or as Morton made anæsthesia, will certainly never have any peace from the clamor of the men who had previously "used" balloons.

But at this point we may ask, wherein did Dr. Long fail? Simply in this, because he fulfilled none of the requisites of an invention. Science does not accept crude, unestablished, unaccepted experimentation as an invention. It requires a perfect demonstration. The invention must leave the inventor's hand in such a form, that others are able to repeat, accept, and practise it. Upon this point, scientific

precedent as well as the laws of the land agree. As is clearly stated by Chief-Justice Story, than whom no higher authority upon this point exists, the invention must be in such form that others may be able "to produce precisely the result described, by using the means specified, without any addition to or subtraction from them."

Dr. Long did not do this. No one repeated his experiments—not a physician or surgeon used ether because he used it, and medicine did not learn from him that anæsthetic inhalation for surgical operations was practicable.

Thus far we have written without "questioning" the verity of Dr. Long's five cases of anæsthesia. Granting all that is claimed for him, we wished to show that even then he could in no wise be considered as the inventor of anæsthesia. We will now prove in his own words that he never produced the anæsthesia, which we have for the moment admitted. In doing this his claim falls doubly flat,

"And error . . . dies among his worshippers."

In his communication, already referred to, made in 1849, Dr. Long says: "*The result of my second experiment in etherization was such as led me to believe that the anæsthetic state was of such short duration that ether would only be applicable in cases in which its effects could be kept up by constant inhalation during the time of the performance of the operation. Under this impression, up to January, 1847, I had not used ether in but one case in extracting teeth, and thus deprived myself of experimenting in the only class of cases which are of frequent occurrence in a country practice.*"

This quotation shows exactly what Dr. Long's "anæsthesia" was. It comprises his whole idea of anæsthesia—from his second experiment in 1842 "up to January, 1847," three months after Morton's anæsthesia of October, 1846. What then does he mean by the term—was it the anæsthesia of to-day, or has he applied the term improperly? Dr. Long obtained certain "effects" which were of "short duration," "of such short duration" that ether would only be applicable in cases in which these effects could be kept up by constant inhalation."

What class of cases can Dr. Long refer to as those in which ether would *only* be applicable? He evidently does not think that there are many cases in which it would be applicable, for, under this impression, he had used it in but one case in extracting teeth during a period of five years. And how reconcile this with the familiar fact, that the anæsthetic state of to-day, and dating from 1846, can be kept up in *all* cases and as long as the surgeon pleases? If this state can be kept up now it could have been kept up in 1842, if Dr. Long had known that it could. And if he had known this he would have resorted to *constant inhalation* and have produced an anæsthetic state of *long* duration. But that he did not know this is more than a reasonable inference. It is established by his own admission. For, "under this impression, up to January, 1847," he had "deprived himself of experimenting in the only class of cases which are of frequent occurrence in a country practice." But why deprive himself of prosecuting his experiments in the simplest and most available cases? The answer to this question is inevitable; it is simply that "anæsthesia," as he understood it, was inapplicable because it was impracticable. It was not "anæsthesia" in any proper or recognized sense of the term.

This is an admission on Dr. Long's part in the clearest terms that his five experiments were failures; that they did not offer sufficient encouragement to

justify him in continuing them in the simplest of minor operations; that, in short, he abandoned "up to January, 1847," all that is now claimed that he "discovered." The reasons why Dr. Long's anæsthesia was impracticable and abandoned are to be found throughout his communication. One curious conjecture arises frequently; this is, that Dr. Long did not give the ether by his own hand, but left it to the patient, who, in the first two experiments at least, had long been in the habit of "inhaling ether for its exhilarating effects." Venable, the subject of the first two experiments, and from whose neck in each a wen was removed, deposes on oath, "*I commenced inhaling the ether before the operation was commenced, and continued it until the operation was over.*" There is a choice of horns in this dilemma. If Venable was etherized as patients are etherized to-day, he could not swear that "he continued it until the operation was over." If he did know what took place, then he was not etherized as patients are etherized to-day. Of the second experiment, Venable swears, "*In this operation I stopped inhaling the ether before the operation was finished,*" giving this as a reason for feeling a "little pain" when "the last cut was made." This is the experiment, be it noticed, which taught Dr. Long that the "anæsthetic state was of such short duration," etc. The situation is perfectly clear. Venable was administering the ether to himself; the state was short because his hands would naturally drop from his face before either unconsciousness or anæsthesia supervened. In his whole article Dr. Long does not once say that he himself held the towel or sponge. This may be inadvertence. If a true statement of the case, it shows that the "effects" alluded to were simply those of intoxication, or, as Dr. Long everywhere says, "exhilaration;" it shows why Dr. Long's "anæsthesia" was imperfect, impracticable, and abandoned. Dr. Long himself says of the first operation: "*The patient continued to inhale the ether during the time of the operation.*" (Inhale is used throughout the article in the sense of the act of giving the ether.) And of the second operation: "*In this operation the inhalation of ether ceased before the first incision was made: since that time I have invariably desired patients, when practicable, to continue its inhalation during the time of the operation.*" These words are meaningless, unless it is accepted that the patient gave the ether to himself. Grant that the patient was the administrator, and we must grant that the etherization was incomplete; and that the anæsthesia in this second operation was incomplete, both Venable and Dr. Long admit. Venable says he felt a "little pain" when the last incision was made; Dr. Long says "he exhibited signs of slight suffering." We dwell perhaps a little minutely upon this second operation, because it is the one which forms the basis of Dr. Long's declamation of faith—the one whose results taught him that the process which he afterwards dignified with the term anæsthesia was impracticable. And no later experiment taught him more than this. We have the curious exhibition of a man in the same breath with which he is attempting to establish a claim, declaring with absolute clearness that his efforts were a failure.

But the evidence is cumulative that Dr. Long was experimenting merely, and had no notion of the anæsthesia of to-day. He says:

"While continuously" (one case annually, be it noted, from 1842 to 1847) "experimenting with ether, with a view of *fully testing** its anæsthetic powers and its applicability to severe as well as minor

*Italics ours.

surgical operations ("I had no opportunity of experimenting with it in a capital operation"),* others more favorably situated, engaged in similar experiments, and consequently the publication of etherization did not bide my time." Well, the world is sorry; but if Dr. Long had not "fully tested" the anæsthetic powers of ether, his time evidently had not come. Another "fully tested" the anæsthetic powers of ether in 1846. Hinc illæ lachrymæ.

Dr. Long explains in another place why he was uncertain and doubtful of his results—why they needed more testing. He writes:

"The question will, no doubt, occur, why did I not publish the results of my experiments in etherization soon after they were made? I was anxious, before making any publication, to try etherization in a sufficient number of cases to *fully satisfy my mind that anæsthesia was produced by the ether*" (italics ours), "and was not the effect of the imagination or owing to any peculiar insusceptibility to pain in the persons experimented on. At the time I was experimenting with ether, there were persons 'high in authority' who were advocates of mesmerism," etc. These terms anæsthesia and etherization glide glibly from Dr. Long's pen, but it must be remembered that they are the words—the plumes—appropriated from the man who did not "bide his time," and we begin to see from Dr. Long's confessions what bare limbs he is decking out in the borrowed finery of 1846; not till then, evidently, was his mind fully satisfied that anæsthesia was produced by the ether.

Great stress has been laid upon the argument that Dr. Long should not suffer from his failure to publish his experiments. We may waive argument upon this point, and submit as a substitute the remark that Dr. Long had nothing worth publishing. For supposing that he had printed in a scientific journal the results of five experiments not yet fully tested and about which he was not yet fully satisfied as to whether they were due to imagination, idiosyncrasy of the patient, mesmerism, or ether, can it be for one minute believed that the world would have hailed him as the "discoverer of anæsthesia?" And is not such a claim, set up for him, in mild terms at least presumptuous? And further, according to Dr. Long's positive avowal, he contributed no information whatsoever to the world; his existence even was unknown to the actors in the events of 1846, the date of the beginning of the universal practice of anæsthesia. Truly the title of "a world's benefactor," so freely bestowed in the legislative proceedings alluded to, is an extravagant term to apply to a man who confessedly gave the world nothing. If Dr. Long had made an invention or discovery he owed it to the world to tell of it. If he had not, he did well to keep silent. With a discovery of such incalculable worth in his hand it is a question as between Dr. Long and the world whether his conduct was not more disgraceful than pardonable. All the unrelieved agony of those four years lies at his door, that is to say, if he was a "discoverer;" but if he was waiting to experiment, to test, to remove his doubts, then he was neither inventor nor discoverer, and the world can excuse him. We think that his conception of anæsthesia, as he himself has expressed it in the quotations we have given, quite justifies his silence, and equally exonerates him before the world of being either inventor or discoverer.

Dr. Long, then, to sum up, left the anæsthetic process where others had left it, and where he found it—a thing possible and to be desired, conceived of and

attempted, but not demonstrated to his own or any follower's satisfaction, and not applied to human affairs or established. And more than this, in failing to publish the results of his experiments, and in thus avoiding contemporaneous (1842-1846) scientific and popular criticism, he vitiates the merit of any subsequent claim made and interpreted in the light of the established facts of others who dared such an ordeal.

And here we leave the subject, conscious that we have endeavored to do Dr. Long and his promoter the fullest justice, and in taking leave of them we ask an impartial and candid profession, if it does not appear that his friends, in giving Dr. Long the comprehensive title of "discoverer of anæsthesia," are claiming far too much for him?

WILLIAM J. MORTON, M.D.,

38 EAST THIRTY-THIRD ST., Saturday, Oct. 18, 1879.

Obituaries.

GEORGE W. CALLENDER, F.R.S.,

LONDON, ENG.

THIS eminent English surgeon died on board the steamship Gallia, which sailed from this port for Liverpool Wednesday, October 15, 1879. During his visit to this country in 1878 we were favored with the opportunity to give to our readers some of his practical instructions in the details of surgical dressings. His simple yet effective manner of protecting his patients from unnecessary pain, and his unostentatious style in presenting his views upon any subject won for him a multitude of admirers in the medical profession. He determined to pay the United States another visit, and accordingly, on the 26th of August, 1879, he sailed from Liverpool on the steamship Gallia, and arrived early in September. Almost immediately after his arrival he became the guest of his old friend, Mr. George W. Childs, the editor of *The Public Ledger*, at his country seat at Long Branch, where he remained for some time. He then spent considerable time in visiting friends in various localities, and, when taken sick, he was at the house of Mr. Henry C. Lea, of Philadelphia. He at once placed himself under the medical care of Dr. Da Costa and Dr. Levis, and was seen by other Philadelphia physicians. Previous to this sickness he regarded himself as a healthy man, and had not the least suspicion with reference to the disease from which he was suffering. Dr. Da Costa suggested that his urine be examined, and Mr. Callender made the examination himself, when he found it loaded with albumen. His feet were then œdematous, and his pulse was feeble. His urine, on microscopical examination, was found to contain large and small hyaline and granular casts, had a specific gravity of 1014, besides a large quantity of albumen. Having a desire to reach his home, his physicians consented that he should attempt the journey, and accordingly he was brought to New York in a special train and carefully transferred to his state-room in the Gallia, which sailed as above mentioned, and a cable dispatch to Mr. Childs announced that he died on the Monday following the day of his departure.

His affection was Bright's disease of the kidney, and he was about fifty years of age when it terminated fatally.

Mr. Callender served as Demonstrator of Anatomy in St. Bartholomew's Hospital twelve years; was then

* Quotation from another place inserted here.

made Professor of Anatomy, and afterwards Surgeon to the same institution, to succeed Sir James Paget.

He was Professor of Anatomy in the University of London, and in February, 1879, was appointed Professor of Surgery in the same institution. He was also Examiner in Anatomy in the University of Cambridge.

He was made a member of the Royal College of Surgeons July 16, 1852, and a Fellow, November 15, 1855. He was also a Fellow of the Royal Medical and Chirurgical Society, and Consulting Surgeon to the Western General Dispensary.

His writings consist chiefly in papers published in the Proceedings of the Royal Society, the Philosophical Society, the Medical and Chirurgical Transactions, the St. Bartholomew Hospital Reports, and in the *Journal of Anatomy and Physiology* and *Medical Journal*. Some of his papers are very elaborate, and possess great scientific value. Among them is a very interesting paper on "The Formation of the Sub-axial Arches in Man," read March 16, 1871; a paper on "The Formation and Early Growth of the Bones of the Human Face." Both of the above papers were communicated by Sir James Paget to the Royal Society, and the latter was read in June, 1868.

In 1863 he read an able paper on "The Anatomy of the Parts contained in Femoral Rupture." He was then Assistant Surgeon and Demonstrator of Anatomy in the St. Bartholomew's Hospital. He also had done some original work with reference to the development of the thyroid gland and the human brain.

By his modesty, his scientific attainments, his gentle disposition, and his social abilities, he endeared himself in the memory of the many Americans with whom he became acquainted during his visits to this country.

He fell in the prime of his manhood, and in the midst of his usefulness, and will be mourned by the whole medical profession.

EDWARD L. MCWITHEY, M.D.

ONE of the younger graduates of the College of Physicians and Surgeons in this city, Dr. Edward L. McWithey, died suddenly October 24, 1879, of Bright's disease, at his residence, No. 326 West Thirty-fourth Street, at the age of twenty-seven years. His professional career was commenced in Greenville, Jersey City, and he pursued his studies with such success that he rapidly attained an excellent practice. His disease resulted from an attack of diphtheria contracted in 1877.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from October 19 to October 25, 1879.

WOLVERTON, W. D., Major and Surgeon. Assigned to duty at Fort A. Lincoln, D. T. S. O. 115, Dept. of Dakota, Oct. 18, 1879.

CALDWELL, D. G., Capt. and Asst. Surgeon. Upon withdrawal of troops from Ft. Independence, to report to Comd'g Officer, Ft. Warren, Mass., for duty as Post Surgeon. S. O. 165, Dept. of the East, Oct. 20, 1879.

BARTHOLOF, J. H., Capt. and Asst. Surg. His temporary detail at San Diego Barracks, Cal., to terminate on 31st inst., and to return to Alcatraz Island, Cal., and resume his duties as Post Surgeon. S. O. 130, Div. of the Pacific and Dept. of Cal., Oct. 15, 1879.

KILBOURNE, H. S., 1st Lieut. and Asst. Surgeon.

Assigned to duty as Post Surgeon at Fort Porter, N. Y. S. O. 189, Dept. of the East, Oct. 24, 1879.

HALL, WM. R., 1st Lieut. and Asst. Surgeon. Upon the termination of his services at Camp Winfield Scott, W. T., to proceed to and take station at Fort Cœur de Lion, Idaho. S. O. 142, Dept. of the Columbia, Oct. 10, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending October 25, 1879.

Week Ending	Typha Fever.	Typhoid Fever.	Scarlat. Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 18, 1879...	0	10	31	3	48	31	0	0
Oct. 25, 1879...	0	19	34	1	36	33	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 22d to October 28th, inclusive, was 11, and the number of deaths that occurred was 10. The total number of cases for this year to October 29th is 1,533, and the total number of deaths, 550.

An official announcement of the Board of Health October 25, 1879, has declared the epidemic ended. It says that but little danger is to be apprehended from yellow fever by absentees or other persons coming into the city, provided the instructions given regarding the ventilation of houses, bedding, clothing, etc., have been fully complied with. The people are advised, on their return, to avoid infected districts. With ordinary prudence, it is thought there is no danger of the disease spreading from the few cases which may yet develop. October 28th, no new cases reported within the past twenty-four hours.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.—At the annual meeting, held October 27, 1879, the following officers were elected for the ensuing year. *President*, Dr. Alfred E. M. Purdy; *Vice-President*, Dr. Horace P. Farnham; *Secretary*, Dr. Frederick A. Castle; *Assistant Secretary*, Dr. Wesley M. Carpenter; *Treasurer, pro tem.*, Dr. Orlando B. Douglas; *Censors*, Drs. J. E. Janvrin, Paul F. Mundé, E. C. Seguin, D. Webster, and F. V. White; *Honorary Members*, F. D. Lente, M.D., of Saratoga, N. Y.; John S. Billings, M.D., of Washington, D.C., and Gaetano La Logia, M.D., of Palermo, Italy.

The Committee on Prize Essays awarded the prize to Dr. Samuel Sexton, of New York.

MEDICAL DEPARTMENT OF YALE COLLEGE.—Among the recent changes made in the faculty of the Medical Department of Yale College we notice that Dr. Matthew D. Mann, formerly of this city, has been appointed "Clinical Lecturer on Gynecology."

THE annual meeting of the French Association for the Advancement of Science took place at Montpellier during the week from August 28th to September 4th.

DR. JOHN JAY ABERNETHY, Medical Director U. S. N., died of cardiac disease, in this city, October 23d, aged seventy four years.

Original Lectures.

CLINICAL LECTURE ON MANIA :

BEING THE FIRST OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY, DELIVERED UNDER THE AUSPICES OF THE COMMISSIONERS OF CHARITIES AND CORRECTION, AT THE NEW YORK CITY ASYLUM, WARD'S ISLAND, BY THE MEDICAL SUPERINTENDENT,

A. E. MACDONALD, M.D.,

NEW YORK.

GENTLEMEN:—In the present short course of lectures I desire to make my remarks as practical as possible; but there are two or three points which I think it will be of advantage for me to touch upon by way of introduction, and in regard to which it is necessary that we should understand each other, in order that you may understand the various patients which I shall have the pleasure of bringing before you.

In the first place, there is, as you are no doubt aware, a considerable confusion among different authorities in respect to the terms that are constantly used in reference to the subject of insanity. For this reason, perhaps, a few definitions of common terms may assist you to a more ready comprehension of the various points which will be brought up in connection with the different forms of insanity. As to the term insanity itself, this of all others has been interpreted in the most diverse ways. Without pausing even to allude to these, I will merely say that I believe the following to be the best and most comprehensive definition that can at present be arrived at:

DEFINITION OF INSANITY.

Insanity is a physical disease which manifests itself in a departure in thought, feeling, and action from the ordinary characteristics of the individual in which it occurs.

This recognizes and embodies two points, which are very important in my opinion, viz.:

First, That it is not a metaphysical disorder, but a real physical disease; and

Second, That we are to look for the standard of comparison in the person affected, and not in other individuals or an ideal type.

There are three other terms which we shall constantly have occasion to make use of, and in regard to the exact meaning of which there is a very indefinite idea in the public mind. These are, delusion, illusion, and hallucination. They are very apt to be used indifferently; but, while they have something in common, each expresses a distinct phase of thought. A delusion is a false or mistaken belief, and a person holding it cannot be argued out of it. Illusions and hallucinations, on the other hand, are mistaken perceptions of the senses, and the subject of them firmly believes that he sees, hears, or smells something which has no existence in reality; but, while an illusion originates in something that is actually appreciated by the senses (although it becomes distorted into something totally different), an hallucination originates in nothing. For instance, an individual suffering from illusion may look at plants or other inanimate objects and imagine that they are human beings; but one who is the subject of hallucination does not require the presence of any such object in order to have his morbid perception.

The differences in regard to the use of terms, and also as to the nature of the various forms of insanity, extend throughout all the treatises on the subject, and each writer has his own classification. In some works pathological differences are made the basis of this, and if our pathological knowledge in this department were only sufficiently far advanced, it would probably be the best one of all; but, unfortunately, this is not the case. Others base their classification on etiology, and others again on physiological, physical, and metaphysical characteristics respectively. For my own part, I prefer to be guided in this respect by the general drift of the symptoms observed; and, in pursuance of this plan, we recognize four forms of insanity.

CLASSIFICATION OF INSANITY.

These are, mania, melancholia, dementia, and general paresis. The last has been added comparatively recently; but the others constitute the natural system which has been in vogue for many years, and has been adopted by many of the best authorities. Before proceeding to the subject proper of to-day's lecture, I will point out to you examples of each of these forms, and mention a few of the prominent characteristics pertaining to each. If you will look at this row of men sitting upon the bench before you, you will, I think, at once notice two things: *first*, that they are different in their general appearance from ordinary sane individuals; and *secondly*, that they differ very greatly among themselves. In the eight patients now present there are two belonging to each of the above forms. The first couple to which I call your attention are the subjects of

MANIA,

and I should like you to notice the marked contrast which they present in their whole aspect to the couple next them, who are affected with melancholia. Taking one of the first class as an example, we find that the man is all activity. He is constantly thrown out from himself, as it were, and notices everything that goes on around him. Hence, he is perfectly willing to converse freely, and will readily answer any question that is put to him. He is very quick in his movements, and altogether presents a very good example of the *asthenic form* of insanity. When questioned as to the manner of his coming here, he gives, as you hear, quite a lively account of his being arrested and charged with being drunk and engaging in disorderly conduct, and he does not hesitate to say that he would become intoxicated again if he only had the chance.

On the other hand, the man next him, who is suffering from

MELANCHOLIA,

presents an example of perfect stolidity. This is the *asthenic form* of the disease, and you see at once the great difference between the two patients, in their whole appearance and all their actions, as well as the tones of voice when they speak. The first is always hopeful (which is, indeed, characteristic of mania), while the second is just the opposite of this, and is constantly in the depths of despair. He is completely wrapt up in his own misery, and is too much absorbed in himself to notice anything around him, unless it should happen to concern himself also. One of the great troubles of such subjects is, that they believe that everybody about them is trying to kill them or injure them in some way. Yet, notwithstanding this, it is very common for them to attempt to destroy their own lives. It is true, as he says, that this patient made such an attempt; and you will notice with what char-

acteristic indifference he speaks, and how low and sad are the tones of his voice. He cut his throat with the intention of committing suicide, and was sent to Bellevue Hospital for treatment. On his recovery he was pronounced insane, and sent to this institution. In my experience, almost every individual suffering from melancholia at one time or another either attempts suicide, or manifests a very strong desire to do so; and this is the case with a large proportion of all the patients who are admitted here, the attempted suicide usually being the immediate occasion of their being sent to the asylum. In the present instance there is the history of a hereditary taint of insanity; and this, I believe, would be found to be the case in almost all others if we could satisfactorily trace the origin of the disease.

There is another point which is exceedingly common in the history of insanity, and that is the element of intemperance. In both these cases—the one of mania, and the other of melancholia—it has been ascertained that there was prolonged addiction to the use of alcohol, and in this institution, where the patients belong almost exclusively to the lower classes, intemperance stands to a greater or less extent in a causal relation in from seventy-five to eighty per cent. of all cases that come under observation. The ordinary history in the case of many of our patients is, loss of work, partial starvation, resort to intoxication, then chronic alcoholism, and finally insanity.

The four principal points of interest about this case of melancholia, therefore, are the hereditary tendency, intemperance, the attempt to commit suicide, and the fact that the patient thinks that everybody about him is trying to injure him. He suffers from delirium, which is like a dream in the circumstance that he is always present himself, while all that happens in it is immediately connected with his own personality. He being thus the starting-point and centre of all, those who stand in the closest relationship to himself naturally become involved in what he imagines also; and hence such a patient is very apt to imagine that those nearest and dearest to him are trying to work his ruin. This shows the importance, in the treatment of cases of this kind, of promptly removing them from the surroundings to which they have been accustomed, and placing them in entirely different circumstances.

The third form of insanity to which I shall call your attention is

DEMENTIA.

This differs from the other two forms which have hitherto engaged our attention, in the fact that in this condition there is really a loss of mind. In the others it would not be proper to say that a patient has lost his mind, because it is often more active than in its normal state; although in a wrong direction. Dementia is usually a terminal form of mental disease, into which the patient drifts from some other variety. Hence it is ordinarily designated as secondary dementia. There is also another form, known as primary dementia; but this is comparatively rare. When it is met with, it is, as a rule, in young persons, and results from some abuse.

The characteristics of dementia are mainly physical. The subjects of it take no notice of what is going on around them; but many of them eat and sleep well, and enjoy excellent general health. Others, however, pay no attention to the ordinary wants of nature; while some have to be tended in every possible way, like infants, from the time that they awake in the morning until they are put to bed at night. In certain instances we find what is known

as the "lay-figure condition," in which the patient will remain indefinitely in whatever position he may chance to be placed. The case which I now present to you as an example of dementia is not so far advanced as some others which we have in the institution; but still he exhibits, in a sufficiently well-marked manner, most of the prominent features of this form of insanity.

The fourth and last form, as I have mentioned, is

GENERAL PARESIS.

It is only within the last thirty years that it has been recognized at all in this country; but it has been known for a considerably longer period in Europe. In the United States it is found indeed principally upon the eastern sea-board, and in New York, I may say, is far more common than in any other locality. In this asylum, therefore, there is a larger proportion of patients suffering from it than in any other in the country. In the present course I shall pay special attention, then, to the subject of general paresis: *first*, because it is a recent disease; *secondly*, because it is one that is constantly increasing; and *thirdly*, because this hospital affords so many excellent examples of it.

As a general rule, patients suffering from it are happy and contented, and everything connected with them, according to their belief, is on the grandest possible scale. Thus, they have the highest opinion of themselves, and their minds dwell on ideas of vastness, as enormous wealth, immensity of space, and unlimited periods of time. There is one peculiarity in the physical manifestations of the disease that is very characteristic, viz., a difference in the size of the pupils; and so marked and constant is this point that the diagnosis may sometimes be almost entirely based upon it. Thus you will notice it in the patient to whom I now call your attention. He is a man of fine education and extensive reading, and he will himself give you some little account of his history and what he has accomplished. (The patient was about fifty years of age, and talked very fluently. During the course of his remarks he stated that no such man as Shakespeare had ever lived, but that he himself was really the author of the works attributed to him, and that it had taken him four hundred years to write them. His plan had been to collect the sayings of the wisest men that had ever lived, such as Solomon, Pliny, Solon, Diogenes, and Bacon, and by combining these he had been enabled to compose the immortal dramas known as those of Shakespeare. The profits from these works would by this time have amounted to many million dollars (to show which he entered into a somewhat abstruse calculation); but, unfortunately, he had been robbed by unscrupulous persons of all the vast sums due him. Still he had a firm belief that all the money would yet be refunded to him. When asked who he was, he said that he was the son of Pope Pius the Ninth, and was eighty years old; and when the inquiry was made how it could have taken him four hundred years to write Shakespeare when he was only eighty years of age, he explained that he had existed in a previous sphere for trillions of years. He mentioned, in addition, that he expected to live for many ages yet to come.)

But, to return to the subject proper of to-day's lecture—mania. This may be subdivided into three forms: acute, recurrent, and chronic.

ACUTE MANIA.

The first of these is characterized by a sudden attack, which lasts but a comparatively short time. On account of the extreme violence of the symptoms it

must necessarily terminate quite quickly either in death or recovery.

RECURREN MANIA.

In the second form we have acute attacks recurring from time to time, and these are apt to come on at shorter and shorter intervals, until the affection glides into chronic mania.

CHRONIC MANIA.

In this, the mania may be chronic from the commencement, or may have become changed from the recurrent to the chronic form, as just stated. In it there are not the same delusions as in acute mania; nor are its manifestations by any means so violent. We have here passion, arising from disease, and more prolonged in its action.

Acute mania has been divided into two forms—that with delirium, and that without delirium. It is probable, however, that the difference is more in the patients than in the disease itself. Those subjects which are young and active usually exhibit the first variety, and those older and more infirm, the second. The prominent feature in all acute mania is sleeplessness. In almost every instance of insanity there is a longer or shorter period of depression; but it is a fact that it is more brief in mania with delirium than in any other form of the disease, so that it may escape notice altogether. The attack usually comes on at night, and from the first there is an utter absence of sleep. The whole course of it must necessarily be a matter of a few days only, as the powers of the patient would inevitably succumb if it were prolonged to a greater period. Frequently such a patient will go entirely without food, because he is so busy with thinking of the subject that preys upon his mind that he cannot spare the time to attend to anything else.

ACUTE MANIA WITHOUT DELIRIUM

is neither so sudden in its onset nor so active in its manifestations. Consequently, the patient sleeps more, and is not so violent as in the first variety. Patients affected with this, it has been noted, often have most voracious appetites, while they are filthy in their habits, and seem to delight in destroying their clothing and whatever else they can lay their hands on. They are not only mischievous, however, but are also frequently treacherous in addition.

Where there is recurrent mania, the patient between the attacks is apparently quite well and rational, and the interval between them is sometimes as long as one or two years. A certain periodicity has often been noticed about the attacks. Thus, where they recur on an average once in a year, it is found that they make their appearance about the same season each year; and when they return more frequently they are apt to come every three months, for instance. In this form of the disease a hereditary taint is almost universally met with, and we naturally look for a fatal termination, after the affection has finally lapsed into chronic mania.

Chronic mania, as has previously been stated, usually follows some other form of insanity. Ordinarily this is acute mania; but in exceptional instances it results from melancholia and other varieties. According to the laws of this State, that is called acute insanity which has continued for less than one year; while chronic insanity is that which has existed for more than one year. Personally, however, I prefer another than this division, and that is one which is based on the symptoms. In chronic insanity there are by no means as many delusions as in acute. As a

general rule, indeed, the patient gradually settles down into two or three delusions, and perhaps but a single one. Hence arises the idea of monomania; but I must say that I do not believe in this at all. I have never yet seen a case in which the patient was really insane upon only one point, and perfectly sane in regard to all others. The case which I now show you is one of acute mania which has improved very much of late, and this next one is an instance of recurrent mania; while all the others at present before you belong to the form of chronic mania. In them the delusions have become considerably narrowed down, and you notice the marked change that has taken place in their features. The hair even has changed its character; being now straight and wiry, and having assumed what is known as the "electric condition." In many of these patients we find a certain incongruity about the countenance, one part of it expressing one emotion, and another, another, which is due to a lack of unity in the action of the various facial muscles. It is a curious fact that while each patient is unconscious of his own infirmity, he believes that the others are insane, and, thinking himself perfectly rational, will often ridicule their actions. Such patients are usually fond of ornaments, and will decorate themselves with scraps of bright colored paper or anything else that comes in their way. There is one prominent characteristic that is met with in them all, and with which you cannot fail to be struck on entering into conversation with them, and that is, the utter incoherence of their language. (The last patient presented was one of chronic mania, in which the distinguishing feature was a passion for inventing so-called astronomical instruments, over which the man would spend a vast amount of time and labor, involving apparently the most extensive calculations. After this the gentlemen present were invited into the wards by Dr. Macdonald, where they had an opportunity of personally conversing with patients affected with chronic mania. Among these we noticed one whose chief delusion was, that he was a full brass band of over a hundred pieces, and whom it afforded great delight to march at the head of a squad of his companions; while another imagined himself an opera singer of world-wide reputation.)

Original Communications.

STATE MEDICINE.

By HENRY H. LYMAN, M.D.,

PROFESSOR OF PHYSIOLOGY AND OF THE DISEASES OF THE NERVOUS SYSTEM, RUSH MEDICAL COLLEGE, CHICAGO.

To the legitimate work of health boards and of sanitary officials no one can make the slightest reasonable objection. Remarking the fact, however, that our sanitary authorities are continually advocating and undertaking measures which conflict with the ethical ideas of ordinary plain people, I have sought to ascertain whether there might be in the hidden essence of things any reason for abjuration of the moral law in behalf of public health. I find, however, that the men whose ideas are most esteemed by the progressive portion of mankind—the philosophers who lead enlightened thought—have for the most part placed themselves on record in downright opposition to many of the pet schemes of our enthusiastic friends. These far-seeing thinkers continually convict our philanthropists of confusing things which should be kept separ-

ate—as, for example, the private sphere of individual energy and the public domain of communal activity, the duties of every-day life and the conduct of emergencies, the treatment of endemic diseases and the management of imported epidemics, etc., etc. For want of clear notions on these and other kindred topics there is an immense lack of well-considered effort, joined with much blind swinging of clubs in the dark, to the great discredit of all who have occasion to concern themselves with matters pertaining to the public health. I have, therefore, thought it worth while to outline a scheme of conduct which shall not so glaringly contradict the fundamental laws of utility and of right, to which so many seem indifferent.

It is useless to attempt a discussion of the duties of the State in reference to the health of its subjects, without first ascertaining clearly the province of government, and the limits beyond which its functions must not be exercised, if the welfare of the community is to be kept in view. Different theories of government are clamorous for recognition, and it is necessary to have a decided opinion regarding the relative merits of these rival theories, unless we are content to remain in doubt and darkness concerning the results of the differing modes of action which will follow our choice between opposing ideas. First and oldest, is the theory of individual government. Every man a law to himself. This is the method of a perfect state of existence, and does indeed express the highest ideal at which humanity can aim. This in its lowest form is the law of the inferior creation, and it is sufficient for the perfect guidance of all creatures and things which are destitute of will and are without freedom. The unerring movements of such things are always obedient to the necessities of their structure and physical nature, consequently they can never go wrong. But when man is set free to choose between the various paths which lie before him, though he ought always to move with invariable obedience to law, he continually fails, through ignorance or through wilfulness, to obey every law of the universe. This disposition becomes more apparent as he is brought in contact with his fellows; and the experience of all ages and of all nations proves that man cannot safely be left in all things to his own guidance: he must have some kind of a governor to keep him out of conflict with his fellow-men.

Emerging from this universal necessity we discover the development of family government and its expansion into patriarchal or tribal dominion. Here the will of the patriarch gives law to the tribe. It is a supreme, personal, human, and therefore capricious authority. It is capable of great efficiency, and has often inspired great respect, even enthusiasm, among its subjects. But, owing to the weakness of human nature, such control cannot bear with any degree of uniformity upon the people, and, as the tribe expands into a nation, the central authority either ceases to restrain or else it ripens into an arbitrary despotism. Of this form of government the world has shown and can still exhibit many well-perfected examples. The intelligence with which such a form of government may be administered is of course exceedingly variable, running all the way down the scale from the empire of Russia to the kingdom of the Zulus; but the same theory inspires each administration, namely, the doctrine of the right of the sovereign power to dictate in every particular the behavior of its subjects. Nor is this doctrine confined to the civil power. It is the central thought of the majority of religious systems; it is the belief of the priest who presumes to guide the conscience of his disciple, prescribing for every

man what he shall do to be saved, and what he shall not do if he would avoid penance and punishment at the hands of the Church, in this world as well as in the next. By a natural affinity these kindred powers in Church and State have drawn together, and, supporting each other, have ruled the world most beautifully—in theory. With what success in fact, history abundantly shows.

Against this paramount sovereignty there have been, however, in all ages, attempts at revolt. Only slaves do not resent such interference with the right of private judgment and independent action. Accordingly, with the progress of the race, and with the evolution of high moral sensibilities among the people, came a spirit of revolt. For more than three hundred years the soil of Europe has been the scene of armed protest against the presumption of the Government in State and Church to regulate the life of the subject. This conflict, though greatly prolonged and hindered from the attainment of its full fruition by the continual abandonment of the field on the part of the most enlightened portion of the people who seek liberty in this favored country, has gone on with varying degrees of success; but through the smoke of battle shines the angel of Freedom, whose form is becoming every day more clearly revealed.

Upon the American continent the French colony of Canada and the English colonies in New England have displayed the finest possible contrast between the rival institutions of Despotism and of Freedom. The English colonists were rebels against the tyranny of their government. Finding no peace at home, they exiled themselves beyond the reach of the laws which they could not and would not obey. They governed themselves, though in no very ideal manner, still in a way that was far removed from the irritating intrusiveness of the government from which they had escaped. The consequence was, a vigorous and manly growth, which has produced the happiest race the world has ever seen.

In Canada everything was ordered after a different plan. The king was supreme. He planted the colony. He prescribed its laws, and regulated its minutest concerns. Only true believers in the royal creed might set foot upon that Christian soil. With every cargo of colonists must sail a religious inspector—a priest—who should convert or drown all heretics before they reached the St. Lawrence. By the side of the royal Governor stood the Bishop; and their decrees must be obeyed. Every one must know his place and do his appointed work.

"You shall hold the first place at the Council. This man shall march at the head of every procession; that man shall bring up the rear. Jacques shall catch fish, but he may sell them only to the royal agent at Tadoussac or at Quebec. Simon shall have so many acres of land for his corn, and shall be hanged if he goes a hunting in the woods. Jean shall be a soldier, and shall fire his gun and roll the drum when I take the sacrament in the cathedral church. No one but the royal monopolist shall buy furs from the Indians, and he shall buy at the royal price all that are offered for sale. All must get married and have children—lots of them—for the country needs population. Bad women shall go back to France, for we must all confess regularly to the priest and be good. Fear God, and honor the king!"

Thus the little colony was managed. Everything was ordered in accordance with the will of a sovereign who exhibited the utmost interest in his children, whom he had commissioned to occupy the American continent for the glory of God and the welfare of

France. Strange to say, the result was an utter failure. Taught to rely upon the king for everything, the colonists would not help themselves. Hampered by a thousand petty restrictions, the Indian trade, which was the life of the colony, found its way to Albany and to Boston. Annoyed by the priests, and educated to believe in the efficacy of the sacraments of the church as a final expiation of all sins, the more energetic youth of the colony, unterrified by the penalties which were levelled at them by the royal mandate, threw off all restraint, and betook themselves to the woods, where they surpassed the savages in the license of their lives. When at length the rival powers of France and of England grappled in conflict for the possession of the continent, but one result was possible, and the institutions of freedom emerged victorious from the trial.

History is rich in similar illustrations of the blighting effects of paternal government. The annals of Ireland are one long commentary upon the unnumbered woes which are caused by the intrusion of government into the private life of the citizen. The records of the Romish Inquisition exhibit the frightful calamities which follow every attempt on the part of even the best of men to regulate the belief and the conduct of their fellow-men. And yet man cannot dispense with government. Some form of control must be devised. A central power with definite functions and limited prerogative is what is needed to secure the equal rights of every citizen. Such security insures the right of every one to perfect liberty just as far as that liberty can exist without encroachment upon the similar right of every other individual. Good government, therefore, consists in the preservation of an exact equilibrium in the relations of man and man as members of a community. Government ceases to be good, and becomes an evil, just as soon as it transcends this function and undertakes to regulate the private life of the individual.

Leaving, now, the realm of abstract thought, let us descend again to particulars which may illustrate the foregoing doctrine. The government of a city promotes the welfare of its citizens when it provides a police force to keep the peace and to protect the lives and property of its citizens; when it raises money by taxation to maintain courts of law, to extinguish fires, to clean the streets, to abate public nuisances, and to provide against such emergencies as may occasionally threaten the welfare of the community. Limiting itself thus to a control of the public life of citizens, the government—whether monarchical, oligarchical, or democratic, it matters not—will secure for all the highest degree of happiness and prosperity. When, on the contrary, the government undertakes to dictate concerning the private life and relations of citizens, the most democratically fashioned institutions may become instruments of a tyranny unsurpassed by that of the Grand Turk himself.

Keeping these premises clearly in view, it becomes perfectly easy to decide how far the State may concern itself with what is called the public health. Over all highways, by land or by sea, over the public grounds and the public buildings of the commonwealth the jurisdiction of the government is perfectly clear. The common air and the common water are left to the control of the State, which, therefore, has the right to interfere with all artificial nuisances which may infringe upon the universal right of citizens to enjoy such air and such water in their native purity. Buildings, like churches and theatres, which are used by men in their public association with each other, may justly be controlled by the State in all that

is needful for the security of citizens. But the apartments of hotels and of tenement-houses, and the ordinary residences of people are used by men in their private capacity, and therefore may not be justly invaded by the State. Honest private citizens in their own homes should be perfectly secure against any intrusion on the part of the government. In every well-ordered State there should be a medical officer to supervise the public relations of citizens, and to act as the adviser of the government in sanitary affairs. It should be his duty to prevent all damage to the health of citizens from the condition and use of the public property of the commonwealth. He should be prepared to act intelligently and promptly in all those sudden emergencies to which the ordinary existence of the community cannot be readily adjusted—such as an invasion by cholera, or yellow fever, or the plague. But it should be clearly understood that *for all the ordinary conditions and incidents of the life of a commonwealth the ordinary resources of the community are sufficient.* A State, a city, a family, will be as healthy as its individual members know how and can afford to be. Sanitary officials must cease their efforts when the line which divides the public life of the citizen from his private life has been reached. Otherwise, their control becomes at once intrusive, vexatious, and productive of evils greater than those which they seek to prevent. The old doctrine that every man's house is his castle is as true in matters pertaining to health as it is in affairs of politics or of religion. Government has no more right to compel a man to make his home healthy than it has to compel him to make his home religious. There was a time when it was thought right to subject men to fines, imprisonment, torture, and death, if they would not regulate their belief and their private life in accordance with the dominant creed of the State. But we now see clearly that such severity is not only wrong, but that it is subversive of the very object in view. And yet, in spite of this experience, there is a class of men—it is to be regretted that some of them are called physicians—who are clamoring for the revival, so far as sanitary matters are concerned, of those inquisitorial powers which made civil and religious authority so hateful to our ancestors. Strange as it may at first sight seem, it is true that in one of the freest countries in the world some of the descendants of the men who by force of arms wrested liberty from the tyrants of the Old World, are now the most reckless assailants of the liberties which were so painfully secured. This fact, however, is only another illustration of the working of natural laws which are beyond the control of human power. Just as disease invigorates the race by weeding it of its weakly members, and as persecution purifies the church, so tyranny stimulates the spirit of freedom. When, by a triumphant outburst of liberal principles, that irritant has been removed, the jealousy with which individual rights have been defended soon languishes, and a few generations suffice to produce a feeling of indifferent security which once more favors all the insidious approaches of the worst forms of despotism. It matters little what the form of government may be. When that vigilance, which is said to be the price of liberty, has once relaxed, the most democratic institutions will lend themselves as readily as the most aristocratic to the work of subverting the liberties of the people. Facts like these should make us cautious and suspicious of the new-fangled methods which certain enthusiasts are so noisily urging upon the public under the guise of philanthropy and zeal for the welfare of the race. In an eastern city, for example, we are told (*Chicago*

Med. Jour. and Ez., May, 1879, p. 515) that, if he could, the chief medical officer of the city "would have every house in which scarlet fever existed guarded by a policeman, whose duty it should be to see that no one but the physician entered or left it until quarantine was removed. Supplies of food would be left at the door." Turkish ignorance and Russian barbarism could not do better! Ignorance I call this, because of its total blindness to the great fact that such endemic diseases are the beneficent agents of that natural selection by which the vigor of the race is maintained. We hear a great deal about the higher education which is claimed as the peculiar attribute of the Athens of America. If that is its legitimate outcome, the less we have of such higher education the better off we shall be. In fact, however, such notions are not the product of high education; they are the result of superficial knowledge and of a failure to comprehend the final causes of disease. They are survivals of mediæval barbarism, and they will vanish like the morning mist before the advance of real education in the realm of natural and social sciences.

We shall, in this connection, find it worth while to consider the results of the method of dealing with scarlet fever by the government, which has been attempted in certain cities; and we speak of scarlet fever because it is the most familiar example of an endemic infective disease which exists in our communities. Physicians are required to report every case to the local health officer, who then undertakes to "stamp out" the disease by nailing a placard upon the infected house. To the utter astonishment of the pin-hole philanthropists, who kindly introduced this novelty, it is received with the greatest discontent by the majority of citizens. Many causes combine to produce this feeling, but chiefest and best of them all is the deep and, let us hope, ineradicable sentiment of hostility to that intrusion by the State into the private life of the citizen, of which the placard thus affixed is the detested symbol. It is not so much the thing itself as the thing it signifies, which is so detestable. The failure to effect any good results by such intrusion is, moreover, admirably illustrated by the same experiment. When people find that the misfortune of illness is likely to bring upon them the additional evil of governmental invasion of their domestic affairs, they are slow to invoke the aid of the physician who finds himself compelled, even against his will, to act as the agent of the State. He, too, when finally summoned, often acts with deliberation. He waits, to be sure of his diagnosis. He transmits the obligatory message through the most dilatory channels. Oftentimes he yields to the solicitation of his patron, and without compunction violates a law which his judgment condemns. Nor is this wrong, for the lower law must always yield to the higher. The occurrence of disease is thus concealed, and the chances of its unsuspected propagation are increased. Consequently the statistics of localities where this intrusive method prevails have disclosed the complete failure of every attempt to limit scarlet fever by State intervention. Stringent measures invariably defeat themselves. This fact, however, will only be regretted by those who have not yet learned to comprehend the meaning of disease and its relation to the evolution of the human race. The British Medical Association, through its recent action (*Brit. Med. Jour.*, Aug. 18, 1879, p. 256) in opposition to the demand of certain local authorities for compulsory registration of infectious diseases, has exhibited a comprehension of the situation worthy of imitation throughout the civilized world.

With the results of such official intrusion let us now contrast the outcome of an ideal management which has learned to respect the division between the public life and the private relations of the citizen, and which recognizes the sacred duty of the State to abstain from interference with those private relations. Under such administration there is no fear of official intermeddling. The occurrence of infectious disease is at once confessed by every family, and the neighbors are put on their guard. Advised by their physician, they will generally consent to place a notice of sickness at their door. Stimulated by a proper fee, paid by the commonwealth, the attending physician at once forwards, by the hand of the householder, who is thus made the responsible party, a notice to the health officer, who passes on the notification to the public school, from which all infected children are thus easily excluded without an opportunity for the expression of the slightest feeling of resentment against the authorities. In this way the public health can be much more effectually protected than is possible under the intrusive system.

At this point in the argument we find ourselves confronted by the almost unanimous contradiction of the official class. They fancy that such lenient measures would be inefficient. They model their conduct after the traditions of despotic governments in Europe, and insist upon the superiority of the results of such methods. It is perfectly natural that they should thus advocate everything which tends to magnify official position and function. Men love power, and seek eagerly for justification of its use. Right here is one of the difficulties with which civilization is obliged to contend. A large proportion of the officers to whom the care of the public health has been confided are men whose only training has been gained in the camp and on the field of battle. They are, too often, men whose years have stiffened their prejudices into a rigidity which incapacitates them for rational discussion of social problems. With little experience of civil life and of the sympathies which should grow out of daily intercourse with the sick, they are peculiarly liable to go astray in the wake of any enthusiast who may chance to stir the sluggish current of the official pulse; and they rarely seek to correct the extravagances of dominant and fashionable hypotheses by consultation with the great mass of practical workers in the medical profession. Too many of their public and official utterances are marked by utter indifference to the constitutional rights of the citizen, and seem only to "breathe out threatenings and slaughter" against all who venture to question their wisdom. It is the exhibition of traits like these that has divorced so many of our prominent sanitarians and philanthropists from the sympathies of the majority of the medical profession throughout the country—a result which cannot be too greatly deplored. It, therefore, cannot be wise to set up such a class as judges of what is right and expedient in the management of the public health. They may appear as advocates at the bar of public opinion, but the experience and thought of an enlightened world must constitute the judge. Such experience shows that every intrusion of the State into the private life of the citizen, whether in the realm of politics, or religion, or health, invariably results in the production of evils greater than those which are marked for suppression. Consider the fate of every attempt to annul the evils of prostitution by a rigid state of inspection of harlots. Though disease may for a brief period seem to diminish, the laxity of manners and the reckless disregard of consequences which are directly fostered by the State, whenever it

thus undertakes to protect its citizens against their own ignorance and folly, soon suffice to swell the volume of disaster beyond its original proportions. This fact is now pretty generally recognized in the adjustment of the relations of the State to the matter of prostitution—a result which we owe to the attention which it has received from the ablest minds in the community. Could the same ability be thrown into the discussion of the relations of the State to other communicable diseases, we should soon be rescued from all fear of the despotic measures which ordinary sanitarians seem determined to saddle upon us.

The adoption of the principles which have now been set forth will not in the least conflict with the assumption and exercise of extraordinary powers by the State in the presence of extraordinary emergencies. In matters pertaining to such emergencies the old maxim, *inter arma silent leges*—military necessity knows no law—is perfectly true. But the forms of pestilential invasion to which a given community is occasionally liable are well known, and are few in number. During the prevalence of cholera, or yellow fever, or the plague, the State may properly display an energy commensurate with the virulence of the enemy, just as the army of the nation should be used against foreign enemies, or in case of insurrections; but the preservation of domestic tranquillity should be left to the ordinary police officials of the country. But, as in time of war we urge our generals to actions which would be criminal in time of peace, so in times of epidemic invasion our sanitary officials may be suffered to enjoy a license which they may not rightfully claim during the ordinary course of events. We need in every commonwealth an enlightened official who shall supervise the *public* health, and who shall be prepared to take the lead in every sudden and overwhelming emergency, but who shall always recognize the fact that by careful abstinence from interference with the *private* health of the citizen he can best serve the highest interests of the community.

Keeping these principles in view, our new State boards of health should find no difficulty in defining their powers and their functions. They may rightfully provide for quarantine upon the borders. They may regulate thoroughfares and public places throughout the commonwealth. They may cause the destruction of diseased animals and tainted provisions which have been made the property of the State; but they have no right to make away with such things until they have ceased to be the property of private individuals. They may—if such a course receives the sanction of their professional brethren—promulgate and enforce the educational conditions in accordance with which physicians shall be admitted to the practice of medicine; for these matters concern the public life and intercourse of citizens. But the relation between a physician and his patient is domestic and private; consequently, so long as that relation involves nothing criminal, no public official has the slightest right to invade that relation. No matter how unskilful or unprincipled the doctor, no matter how foolish the patient, it is their own private affair, and they alone should be responsible for the result. If either party is dissatisfied with the other, there are courts of law in which they may adjust their differences. Beyond affording such facilities, the State has no right to interfere.

Whether a board of health may undertake the collection of information regarding the vital statistics, or the sanitary topography of the country, is a question for the legislature to decide. If the State can afford to pay for the collection and circulation of such in-

formation, there need be no objection to the effort. But if a legislature cannot find means to defray the expenses of such work, it should not be done, and it could not be attempted without immediate and direct invasion of the private rights of citizens. There is no more justice in compelling physicians to make such returns than there would be in forcing them to see that every dying man left his will in proper form.

It is, of course, too much to expect that the doctrines here advanced will be acceptable to those who have abandoned themselves more or less completely to socialist theories of the function of government. The political institutions of Europe are for the most part based upon such theories, the only question about them being whether the commune shall be administered for the benefit of aristocrats, or for the emolument of day-laborers. The taint of such doctrines is infecting much of our own hasty legislation, and will result in unnumbered future evils unless it is met with courageous determination. For this reason I have thus sought to direct attention to the great principles upon which every free government must depend.

AN INTERESTING OBSTETRIC CASE— THE LIVER PRESENTING.

By A. L. SWEET, M.D.,

SOUTHOLD, N. Y.

I was called, October 12th, to see Mrs. H—, a large, masculine Irishwoman, who was supposed to be in labor. The nurses in attendance assured me that the waters had broken some time before. A short time after entering the house I made an examination, and, to my surprise, found a soft, spongy mass occupying the vagina. It was about four inches long, irregular in shape, with an average diameter of perhaps one and a half inches, and so fragile that I could easily tear it with my fingers. I at first concluded that I had a case of placenta previa, and that a part of the placenta had been extruded from the os, although the feel was not exactly like that of placental tissue, and there was no hemorrhage. I was still further mystified when, upon passing my finger higher up, I could find no place where the supposed placenta was attached to the uterus. I could sweep my finger clean around it, and, in making traction on it, it seemed to be firmly identified with the uterus. I also found that the breech was presenting. Being very much in the fog as to the nature of the case, I predicted a still-birth and administered some ergot (as the pains had nearly died out), and awaited the course of events. In due time the child was born, and, after its birth, I found that what I had supposed to be the placenta was the *liver of the child*. The fetus was a small one, justifying the opinion of the mother that she was in labor before her time—was dead, and was a monstrosity. The lower part of the pelvis was undeveloped, being covered only with a thin membrane, and upon the first contractions of the uterus had allowed the contents of the abdominal cavity to escape; so, upon the birth of the child, the liver and intestines were all out of the body. The head and upper extremities were perfect, but the legs were joined to the left side of the trunk at a right angle. Upon the right thigh, about three inches below the trochanter major, was an excrescence about half an inch in length, which I suppose to have been a rudimentary penis, as there were no other signs of sex to be seen anywhere else. There was an anus at the usual place, and a short portion of a rectum. The woman is the mother of three healthy children.

A CASE OF EPITHELIOMA OF THE VULVA SUCCEEDING A LONG STANDING PRURITUS—OPERATION—CURE.

By ELIZABETH M. CUSHIER, M.D.,

NEW YORK.

THE following case presents, it is believed, more than one point of interest:

1st. In the development of an epithelioma in a comparatively rare situation.

2d. In the possible relation of cause and effect between it and the pre-existing pruritus, whether we regard the neoplasm as the result either of injury done to the tissues by treatment of the pruritus, or to the mechanical irritation resorted to in order to allay it. The patient was first seen in Dec., 1878, and gave the following history: Mrs. D—, aged 60, mother of three children. Menstruation ceased thirteen years since. Her health had always been good up to the time when present history begins. Ten years since the patient began to complain of itching of the vulva. This continued to be more or less troublesome, without materially interfering with her health, until about two years ago, when it became much more severe, depriving her of rest at night. During the past six months she has had more frequent attacks of the pruritus during the day, and at night has been obliged to obtain what rest she could by sitting up in an easy-chair, as the itching became intolerable upon going to bed. She complains also of a soreness of the vulva, which she dates from an application made some months previously. She is extremely nervous, trembles and cries when spoken to, and is evidently suffering from loss of sleep. Her appetite has failed, and her strength very much diminished.

The patient has been under treatment during the past two years without benefit. She says she was seen some months since, in consultation with her own physician, by an eminent gynecologist of this city, at which time the vulva was "burned."

The patient was taking, when first seen, morphia powders, but without much relief, as she awakened constantly from the slight dozing which they produced. She was also using a lotion containing carbolic acid. There was no history of leucorrhœa in the case. Upon examining the vulva, both outer and inner surfaces of the labia were found to be pale and glazed. The nymphæ were hypertrophied, and on the inner surface of the right one there was an ulcerated spot about one-third of an inch in diameter, which was covered with pale granulations. The vagina was more healthy in color, and its tissues apparently normal. The uterus was atrophied. The membrane of cervix was of a deeper color than the vaginal membrane, and at the entrance to the cervical canal there was a very slight erosion. A small amount of thin yellow fluid escaped from the cervix. The canal was sensitive to the passage of the probe.

The itching was referred to the entire vulva, but more especially to the region of the clitoris and nymphæ. An examination of the urine for sugar gave normal results. The case seemed a very unpromising one, and was undertaken with but slight hope of success. The treatment was in brief as follows: Locally, applications twice a week to cervical canal, of acid carbol. and glyc., 83. Vag. injections of a one per cent. sol. of acid carbol. night and morning. Ungt. aconitine to be applied to vulva when itching became severe. At the point of ulceration bis. subnit. was used.

The patient was also given potas. brom., gr. xv.; fl.

ext. cannabis ind., ℥ xv.; tr. opii deodorat., ℥ vii., at bedtime, and this was repeated, when necessary, during the night. At the expiration of a week the improvement was sufficient to be very encouraging. The patient was sleeping several hours during the night, and feeling quite rested, although she had not yet ventured to lie in bed. During her waking hours she also suffered much less. At the end of the second week she reported herself as being able to sleep in bed, and her appetite was improving. From this time there was a gradual diminution of the pruritus, and at the end of three months it was comparatively slight. Indeed, the principal symptom now complained of was the soreness and pain at the ulcerated point above mentioned. This had resisted all efforts to heal. It had increased in size, and assumed a different appearance. Its surface was elevated above the mucous membrane, and showed distinct papillary projections, while the surrounding tissue had become hardened and infiltrated. There could now be no doubt that an epithelioma had developed at this point, and Dr. Emily Blackwell, who was asked at this time to see the patient, concurred in the advisability of an immediate operation for its removal. It was six weeks, however, before the patient could be persuaded to submit to such operation, and by this time the growth had increased to the size of a large hazel-nut. It occupied the upper half of the inner surface of the right nymphæ, extending very nearly to the base of the clitoris, and to the base of the nymphæ of the opposite side. The indurated portion could be lifted quite away from the underlying tissue. There was no enlargement of the inguinal glands. It was evident that the growth was limited to the right nymphæ, but on account of its close proximity to the left nymphæ and the clitoris, it was decided to remove both of the latter. The operation consisted, therefore, in the removal of the clitoris and both lesser labia, and was accomplished by lifting these structures well up from the tissues beneath and separating with scissors. The hemorrhage was not difficult to control.

The surface remaining after the removal of the above parts presented three denuded angles: one above, over the site of the clitoris, and one on each side, corresponding to the nymphæ. These were completely covered in by uniting the edges of the tissues bordering them, and for this purpose five silk sutures were introduced on each side and four above. The wound healed throughout by direct union.

From the time of the operation the patient was able to sleep without anodynes, and no complaint was made of the pruritus, while the vulva assumed a more natural appearance, becoming softer and of a normal color. When last seen, some months after the operation, the condition of the patient, both general and local, was very satisfactory, and so completely had all evidence of an operation disappeared, that the absence of the removed structures might have been supposed to be congenital.

Upon microscopic examination of the growth I found the following: papillæ composed of masses of large multiform epithelial cells, also the so-called thorny cells in considerable number. These last were either isolated or in their characteristic groups of from two to several, held firmly together by their serrated edges. There were also present the well known "pearls" which are so frequently found in epithelial new formations. The growth presented, indeed, all the characters of a typical epithelioma.

In the very few cases of malignant disease of the vulva which have been reported, pruritus has been generally mentioned as a symptom. But it still re-

mains doubtful, in at least some of the cases, whether the pruritus preceded the advent of the growth or was excited by it. Mayer,* in reporting nine cases which came under his personal observation, relates one which closely resembles the above; in which the pruritus had existed for years, resisting all treatment, and becoming gradually worse before the canceroid developed which led ultimately to a fatal termination. In most of Mayer's cases the growth existed at the time when the patient came under observation, while the pruritus only dated from a few months, and may have been, therefore, only a symptom of the developing neoplasm.

There can be no doubt, however, that irritation of some kind, here as in other localities, may play an important part in the causation of these new formations. Of the nine cases reported, as above mentioned, by Mayer, there is given a detailed account of five of them, in four of which there had been irritation or injury preceding the appearance of the canceroid, and bearing an apparently close relation to it.

In one of these cases the beginning of the affection dates from an injury done to the tissues by a badly adjusted strap attached to a hernial truss. In another, the patient, during a long illness of her husband, had sat upon the hard edge of his bedstead, often for hours at a time. At the point where pressure had been thus made upon the right labium and nates an epithelioma developed. In two cases there was, as above mentioned, the previously long existing pruritus of the part. In the fifth case it remained doubtful as to the pruritus being antecedent or coincident with the malignant growth.

In regard to the treatment of the pruritus in the case here reported, three questions are suggested.

First.—As to the influence of the aconitine, it is certain that from the date of its employment the pruritus very decidedly diminished.

Second.—As experience has shown that all local applications in these cases so frequently fail in producing the desired effect, at least more than temporarily, is it not probable that the diminution of the pruritus was due principally to the modification of the nutrition of the part as a result of the development of the neoplasm?

Third.—May not also the removal of so large a portion of the mucous surface as is included in excision of the nymphæ and clitoris, and the still further changes in nutrition due to the healing of the wound after the operation, have aided very materially in the final cure of the affection?

VIVISECTION.—The violent agitation against vivisection which has been going on in England, and which even called out an address in its defence, at the meeting of the British Medical Association, has reached New York. Mr. Bergh has appeared in print several times, and has not only denounced the vivisectioning physiologists of the present day, but is extremely severe on Galen and Harvey. Magendie he considers to have been pretty nearly the worst man that ever lived.

In the clerk's office of the College of Physicians and Surgeons there used to hang a drawing representing, we believe, the interesting process of establishing a gastric fistula; Mr. Bergh, in deep distress, being seated in the background. Underneath ran the legend:

"Shall man or beast the greater be,
Science, or false philanthropy."

* Archiv für path. Anat., 55, 1866. M. f. Gebert u. Frauenkrankheiten, 1866, 31, 32.

Progress of Medical Science.

PORRO'S OPERATION: CÆSAREAN SECTION, WITH REMOVAL OF THE UTERUS AND OVARIES.—In the hope of diminishing the mortality after Cæsaean section, Porro, of Pavia, in May, 1876, proposed and practised successfully the ablation of the uterus and ovaries after the removal of the child. The operation was favorably received by the Continental gynecologists, and Fovier, of Paris, in a recent article, stated that it had been, as far as he had been able to learn, performed thirty-three times, with the result of saving more than half of the mothers. To these cases may now be added two more, which were reported to the *Académie de Médecine*, on July 29th, by M. Tarnier. In the first case, the operation was performed seven days after premature rupture of the membranes at the eighth month, and four days after the death of the child. The child and placenta were putrid, and the mother died three days after the operation, of putrid infection. Delivery per vias naturales had been rendered impossible by the presence of a fibrous tumor, which filled the excavation. The second case was successful, and M. Tarnier, in presenting the patient to the Academy, remarked that the case was especially interesting, because the Cæsaean operation had not been successfully performed in Paris since 1787. In this case the operation was rendered necessary by rachitic deformity of the pelvis, which was so marked that cephalotripsy was impossible. The operation was performed the day the patient entered the *Maternité*, but the membranes had ruptured three days before, and the child had been dead two days. The cervix was not dilated. After incision of the abdominal walls and uterus and removal of the child, the uterus and ovaries were drawn out of the wound and a Cintrac's serre-nœud was applied at the junction of the body with the cervix; above this serre-nœud, after the uterus and ovaries had been cut off, a transverse pin was placed, which was itself secured by a second wire ligature. The patient made an excellent recovery, the maximum temperature in the axilla being only 101½° F. The wound was treated on the strictest antiseptic plan, and M. Tarnier is inclined to ascribe the successful result largely to this fact. He believes that the operation is not only justifiable, but that it is destined to take a front rank in surgery. It seems to him superior to simple Cæsaean section, because it does away with two of the dangers of the latter, viz., uterine hemorrhage, and peritonitis from escape of the lochia into the peritoneum. These elements of increased safety will more than counterbalance the objection that the operation entails sterility on the patients. M. Tarnier dwelt urgently on the importance of having recourse to the operation early in appropriate cases, for the sake both of the child and the mother. He believed he was the first surgeon to perform Porro's operation in France, but this claim has been challenged by M. A. Fochier, surgeon-in-chief of the *Charité*, who states that he performed the operation in that hospital three weeks before the date of Tarnier's first operation. Dr. Storer, an American surgeon, is credited with having performed the first operation of this kind in 1868. The issue was fatal. —*Lyon Médical*, Aug. 17, 1879; *La France Médicale*, Aug. 2, 1879.

PERSISTENCE OF THE CANAL OF MÜLLER.—In the March and April number of the *Journal de l'Anatomie et de la Physiologie*, M. Rémy describes the post-

mortem appearances seen in the genito-urinary apparatus of a child who died in the Hôpital des Enfants, Paris, of cystitis and suppurating kidneys, the result of chronic retention of urine. In front of the right ureter another canal was found. It began as a *cul-de-sac* among a mass of little cysts close to the suprarenal capsule, and passed downward under the fundus of the bladder, opening into the utricle of the prostate by an aperture which would admit a large probe. Passing between the muscular and mucous coats of the bladder for some distance before reaching the utricle, it raised the mucous membrane close to the neck of the bladder to such an extent as clearly to have been the cause of fatal retention of urine. This abnormal canal was evidently Müller's duct, and the cysts at its upper end represented the remnants of the Wolffian body. As the duct opened into the utricle, the homology of that depression to the female uterus is practically confirmed by this case.

On the other hand, Waldeyer's theory that the hydatid of Morgagni represents a remnant of Müller's duct, is shaken by the fact that a well-formed hydatid existed on the right testicle. The theory, further, that the little body called the "organ of Giraldès" consists of the remnants of the Wolffian body, is destroyed by the fact that in this case both this organ and the Wolffian body were found separately.

The case thus, apart from its pathological interest, throws light upon three points in the development of the human body.

EXCREMENTAL DISEASES.—Under this title Mr. Geo. E. Waring, Jr., gives a very clear account of the dangers incident to the present methods of removing human excreta. Beginning with the ordinary city house, he shows that, even when perfectly plumbed after the usual methods, there is always a danger lurking in the house drainage-pipes. These pipes are never sufficiently flushed to keep them clean and free from excrement; they have no free communication with the air; consequently they generate and will always contain noxious gases and low organisms. These are kept from entering the house itself chiefly by a few inches of water, which is liable to be siphoned away, and which, in any event, is able to transmit the foul gases and nourish the noxious germs. Human excrement, therefore, is not at present safely removed from our houses by the methods now in vogue. To remedy this, he suggests that the house-drain have a free circulation of air through it, and that the water-seal traps be prevented from contact with the air of the drain.

The dangers of ordinary street-sewers are less than those from the individual house-pipes, because there is in them a constant current of water and frequent changes of air. Nevertheless, they are far from safe.

The best final disposal of the excrement is a question yet to be decided upon.

There are now essentially two methods, that of emptying it into large bodies of moving water, and that of distributing it upon the soil. The latter is much the most expensive in most cases, and is not always practicable.

The whole system of the disposition of sewage has so many dangers and defects that it will eventually have to be changed—a change, however, for which neither public opinion nor the public purse is yet ready. In the address on hygiene at the recent meeting of the British Medical Association, Dr. Fergus attributed the increase of diarrhoeal diseases and the failure to diminish enteric fever and diphtheria in the past decade, to the present method of carrying off excrement, garbage, etc., by means of water, which, he in-

sisted, was a dangerous agent for the purpose. It is considered certain that a change in our present sewerage methods must eventually be made, and it is urged by Mr. Waring that physicians endeavor to encourage and educate people to such a movement.—*Boston Med. and Surg. Jour.*, Aug. 21, 1879.

AN OPERATIVE METHOD TO COMBAT COMMENCING PYÆMIA.—H. Kraussold, in *v. Langenbeck's Archives* (vol. xxii., p. 965), relates the case of a patient at the Erlangen Clinic, whose leg was amputated just above the knee-joint, on account of a badly united fracture, complicated with an aneurism of the posterior tibial artery. The operation was followed by repeated and alarming hemorrhages, and the manipulations necessary to control them destroyed the antiseptic precautions, so that on the fourth day pyæmia supervened, with a chill. As the cause was supposed to be a commencing suppurating thrombus of the vein, the latter was opened, and a discolored fluid along with the contents of the thrombus escaped. Immediately after this the vein was exposed to Poupert's ligament, ligated at two points, and the intervening part, from two to three centimetres in length, removed. The femoral artery was also ligated to guard against further hemorrhage. The temperature of the body at once sank to the normal, and the patient recovered without further bad symptoms. Ligation of the vein under similar circumstances has been performed before with good results, and as soon as the diagnosis is established one would not hesitate to resort to it.—*Cincinnati Lancet and Clinic*.

FATTY EMBOLISM.—This form of embolism seems to be attaining some pathological as well as clinical importance from its occasional occurrence in diabetes, and its frequent occurrence where the continuity of bone is interrupted. Two cases, illustrating the latter fact, have recently been demonstrated by Professor Recklinghausen, and are related in the *Cincinnati Lancet and Clinic*. In the first case, death occurred about forty-two hours after resection of the carious head of the femur. The patient, a healthy and well-nourished young man, had been doing well for the first twenty-four hours after the operation; he then suddenly grew worse, and died in collapse. Macroscopically, none of the organs or tissues presented anything abnormal, and it needed microscopical examination of the lungs to account for the sudden and unexpected death. In the second case, a man forty-nine years old, there existed a very extensive chronic carderitis, with granular kidney, and an immense hypertrophy of the left ventricle. The disease of the arteries had led to the occlusion of both tibial arteries on one side, and dry gangrene had begun to appear, when the patient suddenly died with some symptoms of apnoea. The microscopical examination showed large masses of fat in the arteries and capillaries of the lung.

According to the researches of Bush, fatty embolism of the lungs always occurs in greater or less degree where the continuity of bone is interrupted—hence, even in simple fractures. It is only in rare and severe cases, however, that the embolism is sufficient of itself to cause death.

RECENT PROGRESS IN THE SYMPTOMATOLOGY AND TREATMENT OF INTESTINAL OBSTRUCTION.—For some time past the *British Medical Journal* has been publishing articles from various prominent men, on the subject of intestinal obstruction. The discussion, aroused in this way has brought out a number of important points, and has placed the treatment of

this affection on a more definite and satisfactory basis than ever before.

Preliminary to the consideration of intestinal obstructions, a very useful classification into acute and chronic forms has been proposed by Dr. James T. Goodhart. Under the head of acute he places: 1, internal strangulation; 2, volvulus; 3, intussusception; which latter may also be chronic. Under the head of chronic are: 1, intussusception; 2, contractions; 3, strictures. Besides these there are rare cases of obstruction from gall-stones and various foreign bodies. The symptoms associated with the acute forms are sudden vomiting and constipation. The constipation is generally absolute, but there may be small passages. Abdominal distention, tympanites, visible peristalsis, all follow very soon, while the vomiting eventually becomes stercoraceous. In the chronic cases there is generally a history of paroxysmal colic for some time before the onset of the more urgent symptoms. The abdominal distention slowly increases, and reaches an extreme degree, and the vomiting and absolute constipation come on at a late period. Throughout the illness the visible muscular action is usually a prominent symptom.

It is in regard to the treatment of intestinal obstructions, and especially as regards surgical interference, that opinions have varied most conspicuously, and that the recent discussion has been most extended; nor are the authorities even yet fully united upon it. It is agreed, however, that, in cases of this kind, the first point to be observed is that of denying the patient food and drink. He should receive nothing but nutrient and stimulating enemata. He should not be given any solvents even, with the idea of liquefying the feces, for it has been determined by post-mortem examinations that the contents of the intestines above the stricture are always fluid.

The next point, as to the proper drugs to be administered, is not so clear. According to Dr. Goodhart, opium should be administered, as it not only relieves pain, but often acts in these cases like a purgative, by relieving to some extent the constriction and allowing the passage of the intestinal contents. Dr. W. H. A. Jacobson, however, in a paper read before the Hunterian Society, advises the avoidance of opium if possible, as it has a dangerous tendency to mask symptoms. There is a general agreement, whether opium be used or not, as to the great value of belladonna. In 1878, Dr. Norman Kerr published a paper giving statistics showing the efficacy of this drug. Five cases of intestinal obstruction were related, all of which got well, although three of them received two grains of the extract every hour. It is generally necessary to use very large doses.

Whatever drug may be given, a very prominent indication has, at the same time, to be considered, viz.: that of the relief of over-distention. For this purpose, puncture of the distended coil of intestine above the stricture has been recommended. Dr. W. H. Broadbent, physician to St. Mary's Hospital, relates the case of a lady who was subject to periodical attacks of intestinal obstruction due to pressure of an ovarian tumor. On five occasions this obstruction was relieved by puncturing the intestines, which were greatly distended with gas, with a long aspirator needle. No evil effects followed, in spite of the fact that twice the motion of the collapsing intestine pulled the needle so that it lay flat upon the abdominal wall. It is the more general opinion, however, that puncture of the intestine is an extremely dangerous procedure. If the distention is not at once relieved, the mucous membrane fails to evert itself and

cover the hole; consequently feces escape and peritonitis is set up. If practised at all, great quiescence of the intestine must be obtained by an extra dose of morphine; a coil of intestine containing gas alone should be selected, and it should be punctured in its highest and central part.

Should drugs fail, and puncture be inadmissible or useless, there are still left two courses to pursue: the one is abdominal taxis, the other an exploratory incision, followed, if possible, by surgical or mechanical treatment of the obstruction. More than twenty years ago Mr. Hutchinson contended that gastrotomy for abdominal obstruction was never justifiable; and, further, that, as a rule, abdominal taxis was to be preferred to an exploratory incision. The first dictum has now been conclusively refuted, and it is also pretty well established that if abdominal taxis and all other measures fail, an exploratory incision should be made. Facts, as far as they have been collected, show that an exploratory incision made under the above circumstances will not diminish the chances of the patient, and may save an otherwise hopeless case. Abdominal taxis, however, should, as a rule, be first tried; a point to be remembered is that unless done early it may increase the damage done to the constricted and already weakened intestine. In performing this taxis Mr. Hutchinson's directions are that chloroform be used, that a copious enema of water be forced, by help of a tube, into the intestines, and that then, upon escape of the water, the patient be inverted and the intestines be firmly pressed as high up as possible in the abdomen.

Should all previous measures fail, gastrotomy should be performed, under the following conditions: 1. It should be done earlier than has heretofore been the case. 2. It should be done antiseptically. 3. It should never be done when symptoms of peritonitis or enteritis have set in.

The last rule is laid down by Mr. Jacobson, but it has its exceptions. Thus, in the September number of the *American Practitioner*, a case is recorded by Dr. J. N. McCormack, in which gastrotomy was performed for internal strangulation. Upon cutting down to the peritoneum, the intestines were found agglutinated with lymph, while the strangulated part had already begun to slough. The patient recovered, however, with an artificial anus.

CONTAGIOUS PLEURO-PNEUMONIA.—This disease has recently appeared again among the cattle in Putnam County, New York, and has created much alarm there. The manner in which the disease was introduced is as yet unexplained. The first case appeared last January in a herd on the eastern limit of the county. A second herd, on the western border, became affected in July last. Up to October 9th there had been twenty-seven deaths from the disease; about fifty were then suffering from it, and from one hundred and fifty to two hundred had been exposed. Gen. Patrick, Prof. Law, and Dr. Hopkins have examined the cases and pronounce them undoubtedly those of contagious pleuro-pneumonia. The disease begins insidiously, but eventually develops the symptoms of an acute pulmonary phthisis; the lungs, upon post-mortem, often showing excavations as well as hepatization.

Some attempts were made at first to prevent further infection by inoculating the healthy animals. This, however, has been forbidden by Gen. Patrick. The County Supervisors have raised sufficient money to carry out the "stamping out" process, which consists of quarantine and extermination.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 8, 1879.

HOSPITAL PAY-PATIENTS.

Of late there has been some discussion concerning the proper relations which should be maintained between the attending physician or surgeon and the hospital pay-patient. At first sight the question would appear to be a natural and easy one to settle, but it has in reality grown into one of the difficult problems of hospital management.

With very few exceptions, all of our public institutions receive patients who are expected to pay for the accommodations and the treatment which they receive. The income derived from these sources is devoted to the interest of the hospital, and to the striking of a balance in favor of such patients admitted as paupers. This is perfectly proper when confined within certain limits. But, not content to meet the requirements of patients who are willing to pay a small sum and maintain a certain independence, the managers provide extra accommodations for patients, for which proportionably heavier rates are charged. For instance, some of the private rooms in these hospitals are held at from twenty-five to fifty dollars per week, according to extras which may be furnished in the shape of private medical attendance, private nurses, etc., and yet these patients are expected to maintain the same relationship to the medical staff, regarding pecuniary compensation, as the veriest pauper who, for the purest charity's sake, is admitted for medical treatment.

It requires no argument to prove this a flagrant abuse of medical charity. While the profession are perfectly willing to give their services to the very poor, or even to those who can do no more than pay a nominal sum for their board in a hospital, it is certainly an abuse of such generosity to ask members of the staff to give their time and attention to the treatment of patients who can afford to be luxurious, who demand private apartments, and who are able and willing to pay liberally for them.

It may with some show of justice be claimed that an institution which can, under the name of charity, provide such extras for well-to-do patients, must necessarily make the care of the sick and needy secondary to mere pecuniary considerations and to the maintenance of a first-class hotel, with medical attendance free. As a rule, when a well-to-do patient applies for admission into any of these institutions, if he is willing to pay for his accommodations, no objections are offered by the superintendent. On the contrary, the latter seems only too willing to seize the opportunity of thus increasing the income of the hospital. While it may with truth be said that the managers would not directly interfere with the receiving of a medical fee from such patients, they are so far from encouraging the practice that it is barely tolerated. So much is this the case, that it would be difficult to foretell the result should any attending physician or surgeon of the institution refuse to attend these extra-paying patients unless he received his usual fee for so doing.

It is true that the visiting staff are supposed to give their services free to hospital patients. So far as it is an act of charity, this is perfectly well understood: but a patient ceases to be an object of charity when he is able to pay fifty dollars per week for a private room. If the hospital has a right to accept such extra pay for accommodations under the name of a charitable institution, there can certainly be no blame to the physician for making a proportionate claim. And yet it is said by the hospital management that if such a precedent were allowed, an unjust distinction might be made in favor of such patients as could afford to pay the most. While this objection to a fee system might apply to nurses, it certainly could not do so to the doctor, who, while in attendance upon a case, discharges his duties with as much conscientiousness to a pauper as to a king.

It is well known that certain persons come to the hospital as private patients to the attending physician or surgeon, and that the usual fees are then charged. On the score of equity, there can be no possible objection to this. The physician or surgeon is entitled to his fee the same as if he treated the patient in a hotel. The advantages to both, however, are obvious in the increased facilities which are offered in a hospital for the treatment of disease, and especially when operations are required. But there are patients who frequently come into a hospital of their own accord, without any preference as to medical attendance, simply upon the general reputation of the institution, and the consequent guarantee which it gives for proper treatment. It is these cases who abuse the medical charity of the staff, and who assume that they have discharged all their obligations when their extra bed and extra board are paid for. Not only do these patients impose upon the staff, but upon the profession outside of the hospital. In this way the hospital, with perhaps the best of intentions, becomes indi-

rectly an abettor of fraud, and invites the commission of the very abuses which by its avowedly charitable mission it ostensibly aims to prevent.

How to remedy the evil is, as we have before intimated, somewhat of a problem. The hospitals are not likely to abolish the system of pay-patients, neither are the profession ready to say that with proper regulations the paying system in these institutions is not productive of great benefit. But where to draw the line, and how to do it, are not such easy matters to determine. We take the ground, to start with, that no patient able to pay for medical services should receive them for nothing, whether he be in a hospital or not. Every hospital physician and surgeon owes it to his profession to take a similar position.

It can scarcely be supposed that the managers of any hospital will insist upon a member of the staff rendering gratuitous services under such circumstances, but that they will be willing to listen to reasonable suggestions as regards a remedy. At first it might seem that a pay-patient entering the hospital without any special preference for a medical attendant, is under pecuniary obligation to the hospital alone for all the benefits he receives. Whether the hospital or attendant should receive the fee is a question between the managerial board and the staff. It would seem just, however, when the hospital receives pay for extra accommodations, that the staff should be compensated at ordinary rates for their services, which are really in the shape of extras to patients who can pay.

IMPURE WATER AND DISEASE.

THE sanitary effects of impure water, as originating epidemical diseases, appears to be one of those subjects which are forever coming up for discussion. The question, although obnoxious to many, must continually present itself, especially as the conviction is gaining ground, in the minds of some of our most eminent physicians, that the evils resulting from supplying cities with impure water will have to be radically met, and that without much delay.

It is much to be regretted that the connection between impure water and disease, although amply proved, does not rest on so exact an experimental basis as might be desired. In addition, it must be confessed that the evidence differs much, both in regard to the nature of the different diseases and the value of the testimony, which may arise from defective modes of analysis of water, or inability to make proper microscopical examinations, but probably the chief difficulty is caused by those coming in contact with such cases making but a superficial investigation.

If reference is made to the series of reports on the Public Health in England, by Mr. Simons, instances of outbreaks of enteric fever being caused by the excremental pollution of water, will be found by the

hundred; and while it is impossible to make even a rough estimate of the number of persons annually sacrificed by impure water, taking the cases of enteric fever alone, no less than 6,879 deaths occurred during 1877 in England and Wales, which were, as Mr. Ernest Hart says, intimately connected with filth, and thus wholly preventable. In the admirable fifth report of Mr. Simon, an abstract is given of no less than one hundred and sixty-four epidemics of typhoid fever, investigated by his department during four years, and in all these cases excremental pollution of air or water—generally both—was found. It will thus be seen that the careful and systematic investigations into the causes which have preceded a large number of epidemics in England, are gradually leading to a collection of facts and statistics which will be of the highest importance in arriving at a conclusion.

The recent outbreak of enteric fever at Caterham, England, which was traced, beyond a doubt, to the water-supply, is a striking case in point, although the nature of that supply appeared to preclude the possibility of its containing any impurities which could lead to such a result. In this case we are told by Dr. R. Thorne Thorne, F.R.C.P., who brought the matter before the National Health Society, that during the fortnight ending the 2d of February last, enteric fever broke out in the town of Caterham, and within a few hours at Redhill, an adjacent town, the total number of cases being 196 within the period named, the facts showing conclusively that they constituted an epidemic having a common origin. All the sanitary circumstances of the population were investigated, the systems of sewage and drainage, and the several means of excrement disposal. Every possible means of contagion was in turn dealt with, including the milk service. The water-supply appeared to be above suspicion; it was derived from chalk wells 500 feet deep, and had a decided reputation for being perfectly wholesome, and investigation showed that no contamination was possible by soakage from cess-pools or otherwise. But there was one fact which led to further inquiry in this direction, and it was this, that in the infected district the common supply of water was not used in 1,400 houses, the occupants of which used a private supply of water, and these people were all free from the epidemic which was raging around them. To be brief, for the case is given in the greatest detail, it was eventually found that a workman engaged in repairing one of the wells during the previous month suffered from a mild attack of enteric fever, accompanied by profuse diarrhœa, and was forced to evacuate in the adit, notwithstanding the regulations to the contrary, and within fourteen days the disease broke out in the form of an epidemic among the consumers of the company's water. As soon as these facts became known, the inhabitants were cautioned against the

use of the water, until all possible contamination was got rid of. The efforts in this direction were so successful that the epidemic soon ceased, and has not been renewed, although the water is again in general use.

It is not our purpose, in these remarks, to treat of the water-supply of this or other cities of the Union; but with this case officially before us, we cannot refrain from noticing, in passing, the notorious fact that the water-courses that supply the city of New York with its drinking-water are contaminated by very many sources of pollution, and that besides the general drainage of a district passing into the stream, Irish settlements, and dwellings of laborers upon the banks, have each their rough drain or sewer leading more or less directly to the lake. Bearing in mind that the district from which the croton supply of water is obtained, is always more or less troubled with fever, the public danger of the contaminations we refer to are too obvious to require further exposition.

We have briefly touched upon the various bearings of this important question, in the hope that by showing the deep interest exhibited by our professional confreres in England, in intelligently investigating the subject, that a like concern may be taken by our own physicians, whose opportunities for studying epidemical diseases are unfortunately greater than those presented to medical men in most civilized countries. It is this careful and patient collection of facts, and their thoughtful and scientific interpretation, that must place this question of water contamination in relation to the causation of disease beyond the pale of argument, and thus prepare the way for suitable preventive measures. We therefore repeat that our English brethren have shown us a good example.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

We are gratified to learn that the seventh annual meeting of this organization, to be held at Nashville, Tenn., on the 18th to 21st inst., bids fair to rival in point of interest and importance any of its previous gatherings. The circular issued August 15th, by the President, Prof. Cabell, and the additional announcement contained in the National Board of Health Bulletin, No. 14, evince a wise choice of subjects for discussion, which, if properly treated, will command public attention from all parts of the country. The subject of city sanitation, though considerably agitated by the public press, and studied by local health authorities, presents many points worthy of the careful consideration of a deliberative scientific body like the Public Health Association, while the "practical questions connected with the management of an actual or threatened outbreak of yellow fever" may be considered in these days of rapid communication, of great interest to the Northern and Western, as well as to the Southern States. We shall therefore at-

tentively watch the proceedings of this meeting, which cannot fail to be interesting and beneficial to the members and the general public.

No efforts are being spared on the part of those interested in the welfare of the Association, to insure the success of this annual meeting. Many of the railroads leading to Nashville offer reduced rates of fare; hotels extend to members and delegates liberal terms; and the local committee and citizens of Nashville are preparing to give the Association a cordial welcome.

Reviews and Notices of Books.

LECTURES ON SYPHILIS OF THE LARYNX, LESIONS OF THE SECONDARY AND INTERMEDIATE STAGES. By W. MACNEILL WHISTLER, M.D., M.R.O.P. London: J. & A. Churchill, 1879. Pp. 88.

THIS little book is a reprint, with slight additions, of two lectures delivered at the Hospital for Diseases of the Throat and Chest, London, and first published in the *Medical Times and Gazette*. The treatment of the subject, which does not touch upon the deeper lesions of the tertiary stage, is much more thorough than would be expected in a clinical lecture, and, in fact, has the completeness and detail of a monograph or of a chapter of a text-book. Its principal interest lies in the description of appearances found in laryngoscopic examination.

Reports of Societies.

NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, October 6, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

TUMOR OF CRUS AND PONS.

DR. R. W. AMIDON presented microscopic slides holding sections made from a tumor which involved the crus and pons. The point of interest centered in the question, "Are the nodules syphilitic or tubercular in character?"

RESOLUTION RELATING TO A CONSULTING BOARD FOR LUNATIC ASYLUMS.

DR. W. A. HAMMOND, under the head of Miscellaneous Business, introduced the following resolution, which was unanimously adopted by the Society.

"Resolved, That the recent board appointed by the Commissioners of Charities and Correction as Consulting Board to the Lunatic Asylums on Ward's Island and Blackwell's Island, though composed of distinguished physicians, does not represent the science of psychological medicine in this city, and therefore, in the opinion of this Society, is not competent to do the work assigned them."

Dr. Landon C. Gray, of Brooklyn, was elected Vice-President of the Society, to fill the vacancy caused by the resignation of Dr. Kiernan.

THE ASSOCIATION OF APHASIA WITH THE SYMPTOMS OF SO-CALLED SPASMODIC SPINAL PARALYSIS.

DR. GRAY read a brief paper, in which was related the history of two cases that illustrated the above

combination of symptoms. The association of aphasia is not infrequently observed in cases of cerebral hemorrhage, followed by secondary degeneration in the cord, but he was not aware that the same combination had been mentioned as occurring in any other class of cases.

DR. E. C. SEGUIN remarked that while he had seen a number of cases of infantile spastic paralysis, in none of them was there true aphasia. Speech was normal in all the cases except those in which there was an imperfection that was infantile, but was not aphasic; it was due to lack of development. He thought that, in the vast majority of cases, at least of congenital tetanoid paraplegia, there was no peculiar defect in speech which could be called aphasia. The motor tract was not necessarily intimately associated with the speech tract, and it was easy to conceive that a large number of cases of lack of development occurred with symptoms belonging to what was called tetanoid paraplegia, yet without impairment of the parts of the cortex or white substances which lie anterior to the common motor tract.

DR. GRAY remarked that in his first case, more especially, the patient told him repeatedly that he could not recall words which he wished to speak, but that when they were pronounced for him he had no difficulty in repeating what was spoken to him.

DR. HAMMOND stated that he had not seen *amnesia* aphasia associated with spastic paralysis, but within the last year he had seen two cases in which *ataxic* aphasia certainly was present. Memory was perfect, and there were no cerebral symptoms other than those relating to speech. In one of the cases the staccato speech was illustrated.

NERVOUS DISEASES IN EUROPE.

DR. GEO. M. BEARD remarked briefly on the study of Nervous Diseases in Europe, and based his remarks on observations made during his recent visit there.

METALLOSCOPY.

While in Paris, Charcot gave him every opportunity to observe all his experiments, not only in the department of metalloscopy, but in trance, and the conclusions which he had reached from the observations then and there made are as follows:

1. Results far more interesting and informing, both in a physiological and in a therapeutical sense, have been obtained where the experiments were made in such a way as to make it absolutely certain that the only factor in producing the results was merely *subjective*—the mind of the patient acting upon the body. It is also established that, under any influence or mode of treatment calculated to act on the emotions in any way, it is difficult to exclude this subjective element of error which comes from the mind of the patient operated upon.

In his own experiments in mental therapeutics, thus far published only in abstract, Dr. Beard believed he had established the following:

By turning the mind of the patient on his body, through any process whatever, as by stating the precise hour when recovery will take place, by applying metals *outside* of the clothing, etc., it is possible to cure permanently as well as very rapidly, and in some cases instantaneously, cases of long-standing functional nervous disease.

Even *organic* structural disease may, in the same way, be relieved temporarily more speedily and satisfactorily than by any of our objective medication.

In any physiological or therapeutical experiments or measures, like the application of metals or magnets, or any very imposing proceedings that strike the emotions of ignorant or hysterical women, the presumption is, thousands to one, that the result, whatever that may be, is *subjective* and not objective, and this presumption must be overthrown before such experiments can be received as science.

2. On the other hand, the recent discoveries and inventions, of which the telephone, the phonograph, the audiometer are types and representatives, have proved that great results can come from changes in matter very minute and out of the range of the senses. It is also well known that a magnet can stop a watch, elongate an iron rod, and make music in it. These results so far are in favor of the claims of Burq, Charcot, and others in regard to metals, magnets, and solenoids.

3. The first presumption can be overcome only by a series of experiments on different patients, under different circumstances and at different times, in which all the six sources of error that apply to all the experiments with living human beings have been carefully eliminated. The six sources of error are the following: 1. Unconscious deception on the part of the subject experimented on; 2. Intentional deception on the part of the subject experimented on; 3. Intentional collusion of other parties; 4. Unintentional collusion of other parties; 5. Chances and coincidences; and, 6. Phenomena of involuntary life, the mind of the subject operating on the body and producing results. To eliminate these errors, the subject experimented on must be *deceived*.

4. The reports of experiments made by Burq and Charcot as they were *first* made, and the replies to criticisms upon them, contained no evidences whatever that these sources of error had been eliminated. It is right, and scientific, and necessary, therefore, that we should assume that the presumption that the results were subjective had not been overcome. Dr. Beard had nothing to recall or modify of his criticisms on these experiments in his pamphlet on that subject.

5. There is, however, *now* evidence of an important character that more recent experiments of Charcot and others have been made in such a way as to eliminate these sources of error; and if the statements of Charcot made to Dr. Beard are accepted, results have been obtained which, some of the time at least, are objective, and we have so far obtained an addition to physiological science. Similar results as those reported by Charcot in hysterical conditions have been obtained by Dr. McCall Anderson, of Glasgow, and, according to his own report, the elements of error were properly eliminated by the use of *false* magnets. When he used false magnets no effects followed; Charcot says the same.

6. The subject has therefore reached a stage where it may properly receive the attention of experts in this department. It is an open question waiting to be closed one way or the other. No experiments in this department are worth anything unless the subject is all the time deceived. The public exhibitions of Charcot prove nothing.

These questions, however settled, have a physiological more than a therapeutical interest. Charcot has abandoned metal therapeutics so-called, and regards his experiments merely as physiological curiosities. It is, however, not impossible that we shall find in these processes an addition of a certain value—perhaps a greater value than is now apparent, for relieving hysteria, neurasthenia, and allied states.

ELECTRICITY.

With regard to the use of electricity, not much progress had been made within the last few years. With regard to the question of direction of current, he was much interested to hear the views of Erb, who said that we did not know sufficient of the physiological action to tell what direction of current should be used therapeutically in the sense in which various writers were speaking upon that subject. Dr. Beard had long taught this doctrine, and thought it was the growing view upon that theme.

WATER IN THE TREATMENT OF NERVOUS DISEASES.

He also observed that water was more and more used in the treatment of nervous diseases. Charcot was using it a great deal, and sent many of his patients to an institution where they could get special treatment in that direction. As one means of counter-irritation, he was using a very fine stream of spray, sent against the skin with such force as to give a sensation of burning.

SEA-SICKNESS.

He experimented somewhat in the treatment of sea-sickness, and found that large doses of the bromides, sodium preferably, with caffeine, and hypodermics of sulphate of atropia, were effectual means for controlling the trouble. Bromides in 80, 60, or 90 grains daily, begun two or three days before sailing and continued while at sea, deprived sea-sickness of one-half of its terrors, and in that respect verified the claims made by Dr. F. D. Lente for the same remedy. Sulphate of atropia hypodermics, $\frac{1}{16}$ of a grain, and repeated sufficient to produce dryness of the throat, gave very satisfactory results.

Caffein acted exceedingly well in many cases, given in two- or three-grain doses, and repeated in the same manner as when given for sick headache. Headache is the only symptom present in some cases of sea-sickness, and in those cases caffeine was especially serviceable.

HAY FEVER.

Dr. Beard also heard of three or four who had hay fever all the time they were on the ocean. One man was cured as soon as he landed in England.

The city of London, on account of its enormous size, was also a kind of refuge for hay fever subjects, a fact which he had not before known.

DR. HAMMOND said that the experiments performed by Charcot in the use of metals and magnets were such as were made more than one hundred years ago. While he did not dispute that the phenomena had been observed that was claimed by Charcot, he believed the same phenomena can be produced by the use of pieces of wood or tortoise-shell having the shape of magnets or metals. With reference to the delicate stream of water, he had used it for some twelve years, and regarded it as a very good form of counter-irritation, although he had not used it for some time.

DR. BEARD remarked that the only difference between his belief and Dr. Hammond's was that, if what Charcot told him was true, and if what McCall Anderson had published was true, he believed there was a possibility, based upon the statements of those two men, that the magnets *might* in some cases of hysteria produce a slight physiological effect. The fact that such phenomena could be in some cases obtained without using a real magnet, by mind acting on body, was nothing against some of the results claimed by Charcot.

The question was discussed at some length; after which the Society adjourned. J

Correspondence.

DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue of the 11th inst., Dr. T. C. Waite refers to a note of mine upon the subject named above, published in the RECORD of Nov. 28, 1878, which he must have read very carelessly, or he would not have ascribed to me experiments made in Switzerland and reported to the Agricultural Society of Canton de Vaud, in 1867. These experiments demonstrated the correctness of the Thury law for the production of sexes at will: namely, that conception following menstruation produces females, and conception preceding menstruation produces males. If Dr. Waite will again read my article he will see that I advanced no theory. It was not my purpose to do so. The truth or falsity of the Thury law can be sooner and more satisfactorily demonstrated by careful experiment than by the evolution of theories which must remain, more or less, the subject of controversy. If the law be correct, or even if extended experiments prove that only a majority of cases follow the rule, the fact ought to be known. Every practising physician will meet with instances where this knowledge would confer untold happiness. The variable periods of gestation and the difficulty of determining the exact time of conception, tend greatly to hinder research in this field; but if every accoucheur would diligently inquire into the matter, much valuable information would be elicited. If it be found that where the full-term delivery occurred at or before the expected time, the child is female, and where gestation goes on longer than was expected, the child is male, the evidence will be strong (but not conclusive, I admit) in favor of the proposition of Prof. Thury. Again, there are but few physicians who have not had an opportunity among their patients, whose judgment and candor he can rely upon, of fixing exactly the time of conception. It was to call attention to these observations—to promote interest that would lead to extended experiment, and not to elaborate any theory, that prompted me to write the short article of one year ago. I may say that my investigations since that time point without exception to the same conclusions.

I might well refer Dr. Waite's question, which he thinks will knock the theories of the "learned doctors" into "infinitesimal atoms," to others than myself who have written upon the subject, as I have not advanced any theory and cannot presume to class myself among the "learned doctors." But as I am the only person he names, I will say that a plural pregnancy of different sexes argues nothing against the correctness of the Thury law. It could only do so if it were a fact that every plural pregnancy is the result of a single act of insemination, by which the two or more yolks which are occasionally found in one ovum are simultaneously fertilized. But such is not the case. More than one ovum may be contained in one Graafian vesicle, or more than one Graafian vesicle may be expelled from one or both ovaries, and these may be fertilized by a single act, or by different acts of insemination. That the last proposition may be true is proved by cases on record where white women have borne twins, one white and the other mulatto. Will Dr. Waite undertake to assert positively that twin pregnancies of different sexes are not the result

of separate acts of insemination, the male the product of that previous to, and the female of that after menstruation?

Respectfully,

JOSEPH A. MUDD, M.D.

NEW SALEM, Mo., Oct. 21, 1879.

DETECTION OF STONE IN THE BLADDER.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I notice in your August 2d Journal a note on detection of stone in the bladder by means of iron wire bent to touch the ears and connected with the sound. If the author of this method, or any one disposed to try it, will attach a wire to his sound and take the unattached end of the wire *between his teeth*, he will find it will betray minute touches with surprising delicacy.

Respectfully,

JAMES B. HODGKIN.

WASHINGTON, D. C., Oct. 21, 1879.

THE PROLONGED RETENTION OF LIFE IN THE NEW-BORN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Recently I received a call from a lady living at some considerable distance from my office, and knowing naught of the case, indulged in no particular haste to answer. It proved to be an obstetrical one, and upon my arrival, a lady, the only person present with the patient, stated that the child had been born over half an hour, and was dead; she was positive about the time, and referred to a clock in plain view on the mantel. Since its birth she had proceeded to a physician over half a mile distant, only to find him absent. The labor had been precipitate, and I found the child lying between the mother's thighs, the head being pressed firmly against the vulva, and held there by the cord which passed about the child's abdomen, and then took two turns about its neck, while the placenta was still held securely in utero. The turns about the neck formed a sort of clove hitch, and were so tight that my finger could not be inserted beneath until the cord was severed. Notwithstanding the cessation of pulsation and deep cyanosis, the results of at least thirty minutes' complete strangulation, yet persevering and long-continued efforts at resuscitation were successful. Every accoucheur sees such, and even graver instances, illustrating the almost incredible prolonged retention of life in the new-born who have not breathed, and this remarkable power to resist the deprivation of air actually remains in a decreasing degree even to the fourth and fifth day of life. The experiments of Legallois show that puppies and kittens may be kept under water immediately after birth, with impunity, for a period not less than twenty-eight minutes. In some experiments carried on by myself, it was found that puppies two days old died only after being submerged from fifteen to nineteen minutes, while one of the same age, who showed no effects after one hour, from the subcutaneous injection of morphia, gr. ss., being then submerged, succumbed in seven minutes. The human still-born fœtus can live longer without respiration than can any other mammalian fœtus.

The cases in the "Gazette Hebdomadaire" for December 1, 1824, fully demonstrate this fact.

The following cases can be found in Braithwaite's Retrospect, Part XXXI.

A woman, æt. 25, who had tried to conceal her pregnancy, was delivered when seated on a tub. The infant, born without any signs of life, was buried in a sand-pit, and, after remaining there for half an hour, was removed, and lived.

In 1850 a young woman was tried by the tribunals of Berlin, who had buried her new-born male infant, believing it to be dead. After an hour the infant was disinterred, and recalled to life.

T. P., a servant, æt. 23, was delivered in a stable, when leaning against the wall, alone, and in a state of unconsciousness, about half past four A.M. When she came to herself, she found the infant on the ground, having a spade lying upon it, with its cutting edge turned to the body. She took the infant, which was perfectly cold, believing it to be dead, and with the placenta attached, wrapped it up in her apron and buried it in the garden. Suspicions arose that she had been confined; she confessed, and at half-past nine the infant was dug up from a depth of thirty centimetres. It was found lying on its face, with the placenta under the abdomen. Though cold, apparently dead, and pulseless, the cord was tied. For two hours, P., a surgeon, used means to reanimate it; when at last it began to breathe freely, gradual signs of life became more evident, and it cried. Some slight wounds were observed on its body; wounds in the neck which did not bleed at first, bled when the infant was restored. On the 17th and 18th the wounds suppurated, and on the 19th it died of convulsions. The physicians intrusted with the judicial autopsy reported that it had been inhumed before it breathed, and that it had not breathed till after it was exhumed.

From the above one would seem to be encouraged to persist much longer in the attempts at resuscitation in cases of infantile asphyxia than is generally done by the majority of us, and he who would be the most successful in such attempts need not be the most skillful, but must be the most patient and persevering.

Respectfully,

A. C. HOFFMAN, M.D.

JERSEY CITY.

LITHOTRITY BY THE SURGICAL ENGINE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—That lithotritry is still in its infancy, and will ultimately do away with the dangerous operation of lithotomy, I have not the least doubt. I have paid much attention to this subject, but never saw my way clear to any practical operation to effect this great desideratum, until the introduction of the surgical engine. In making suggestions in regard to the improvements of the present mode of lithotritry, let us make an inquiry into its main objection. This appears to be the local and constitutional effects of the use of the lithotrite. It is a matter of importance to ascertain the seat of irritation caused by the use of the instrument. It is evidently within the channel of the urethra, and near its entrance into the bladder. The anterior urethra will tolerate a short bougie without any of this characteristic irritation, which I have repeatedly tested by a system of treating gleet with atmospheric pressure with short bougies (*vide* "Medico-Chir. Review," Phila.); and, on the other hand, the bladder is accustomed to a foreign material, and besides, is not subject to any special hyperæsthesia, except at the neck of the bladder, where it impinges upon the internal opening of the urethra.

The clumsy introduction of a catheter into the blad-

der will induce this same irritation and its consequences, but one introduced with care and skill, and left within the urethra even for hours, may cause little or no trouble. It is not the presence of a polished foreign body at this seat of hyperæsthesia, but the friction of its use that produces the mischief.

To make lithotripsy uniformly safe and successful, we have to construct and use such instruments as will meet this difficulty. To bring about these favorable conditions, first introduce any easy bougie into the bladder, and allow it to remain for a short time. Continue this operation daily, only increase the size of the bougie, and extend the time of its retention as you pursue the treatment. By this procedure you effect two things—you establish a tolerance of the instrument, and at the same time effect a dilatation of the urethra. For the final operation, introduce into the bladder a silver catheter of the size of the last bougie that was used. The catheter is to be made of a very thin sheet of silver; and the bladder-end of it, so shaped as to facilitate its introduction, is fixed to the style, which is removed after its introduction into the bladder. This catheter gives us free access into the bladder—to wash out its contents—and for the repeated and ready introduction of instruments, without inflicting the least violence of the soft parts.

The lithotrite to be used is made light and elastic in the stem, so that it can be readily introduced through the catheter, with a clasp to hold the stone pretty much after the usual style. The instrument is made of the best steel, and in fashion for its ready passage, in particular through the curve of the catheter. It is an instrument simply to hold the stone, and not to crush it.

After the stone is secured by this instrument a drill is passed through it, terminating within its clasp. This drill is fastened to the end of a steel wire, and in order to insure protection to the soft parts of the interior of the bladder, its action must be strictly limited within the jaws or clasps of the lithotrite. After the stone is secured with the lithotrite, the drill is introduced and brought to act upon the stone by the surgical engine. A revolution of two thousand per minute will soon drill a hole through it. After one hole is thus drilled, change the position of the stone and drill another, and so on until you have demolished it. The instrument can be removed repeatedly, either to wash out the bladder, to inject water, or to extract fragments of the stone, without causing the least irritation to the urethra that is so well protected by the silver catheter.

There will be no difficulty in getting rid of the debris of the stone if the instruments are properly constructed, for by water and the contraction of the bladder we ought to be able to get rid of every particle of the stone. By this method of operating, the stone can be removed at one sitting with little or no pain or constitutional troubles as a consequence.

GEO. P. HACHENBERG, M.D.

AUSTIN, TEXAS.

SOME REMARKS ON CLIMATOLOGY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The following letter is from a very intelligent gentleman, an invalid, who has travelled very extensively over the world, and who has lately made climatology a study, and is now engaged on a work descriptive of the health resorts of the old and the new world. Although the letter is a private one, and not at all intended for the public eye, I think it may prove interesting just now to some of your readers

who are being consulted about a suitable climate for the coming winter.

Yours truly,

FREDERICK D. LENTE.

MILAN, October 3, 1873.

My Dear Doctor:—I am studying the European health resorts at present, and with all the impartiality of which I am capable. Florida holds the first rank, and I place it above Egypt and Algiers also. Almost all the European winter resorts are irritating in their influence on the nervous system. The Riviera resorts are especially so; invalids, as a rule, find great difficulty in sleeping. Such exciting climatic influences, I take it, must be disadvantageous. You accentuate, and I think none too strongly, the necessity for plenty of pure air in consumption.

Taking this view, there is not one known resort on the Riviera that should not now be tabooed to that class of invalids. Cannes, Nice, Monaco, Mentone, San Remo, and even Hyères, have grown into large towns, crowded on one side by the sea, and on the other by mountains. The mild climate of this coast is principally owing to the protection from wind it enjoys. With the exception of an occasional "mistral," the air changes very little. The sea is tideless, and the drainage of what is now almost a continuous town is poured into this currentless water. The drainage of the hotels is also bad beyond belief, and, as a consequence, typhoid and all sorts of low fevers are prevalent.

Ten years have made a great change in the Riviera. When I first knew it, the conditions of health were better. Egypt is not an irritating climate to the nerves, but is so to the mucous membranes, especially to the stomach. About February, however, commence what are called the "khamseen" winds, which are intensely hot, dry, and exciting winds. They prevail from February to June, and last usually two or three days whenever they blow. The ordinary day temperature at that season in Cairo, say 60° to 70°, and night temperature, say 34° to 50°, is changed by these winds in a few hours and raised to a continuous heat of from 95° to 120°. The latter temperature I myself recorded last May, seventeen miles from Cairo, at a sulphur spring called "Helonan." The temperature falls as rapidly as it rises. I knew of several serious cases of hemorrhage from the lungs during these winds. As they commence too early for invalids to risk safely a voyage on the Mediterranean, they seriously impair the usefulness of Egypt as a health resort.

Hoping to hear from you again,

I am yours sincerely,

ABBOT KINNEY.

FLEXIBLE VULCANITE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—As material for pessaries India rubber is liable to the very great objection that it becomes foetid and macerated in the vaginal fluids, exciting leucorrhœa and erosions. Vulcanite is free from these difficulties, but it is rigid, inelastic, and therefore splints the vagina, and tends to atrophy of its muscular elements. The hard rubber or vulcanite instruments often become imbedded in the tissues, and produce œdema and ulceration. In the attempt to combine the advantages and to eliminate the disadvantages of these materials, I have produced a new instrument, which is now offered to the profession for trial. It has a coil of fine wires braided into a cord and covered with a modified vulcanite, which, while it retains the flexibility

polished and hard surface of ordinary vulcanite, is still flexible and elastic.

The instrument may be bent, without the aid of heat, by the *fingers only*, and will retain the shape thus given to it. It is for this combination of materials only that originality is claimed.

Several have been worn by my private patients from one to three months, and are found to retain their fine surface unaltered, and have not been found to produce the inconveniences of soft rubber. The instrument is cheaper than many, and may be found at Schmidt's surgical instrument store, on Broadway and Thirty-fourth Street.

W. M. CHAMBERLAIN.

58 WEST FORTIETH STREET, Sept. 30, 1870.

SOME CASES OF BRIGHT'S DISEASE TREATED WITH JABORANDI.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—As the brief records of some cases of Bright's disease in which jaborandi was employed may be of interest, permit me to submit them.

CASE I.—I was called one evening to see a woman said to be hysterical. I found, indeed, all the symptoms that are given by the best authors of that protean malady; but, as the patient was pregnant, and had some headache, I endeavored to procure some of her water. It was impossible to get more than a drachm, as she fought like a tigress. It contained some albumen. I ordered free purgation, and gave bromide of potash, chloral, tr. valerian to quiet her. Eight hours after, I was again called to see my hysterical patient in "fits." Os uterus slightly dilated, and her convulsions occurring at each contraction of the uterus. I sent for forceps, and dilated the os uteri rapidly. I gave hypodermically $\frac{1}{4}$ gr. of pilocarpine. It acted promptly, and her convulsions were so modified that I gave her, in a half-hour, another injection of the same amount. The child was now delivered. Some other convulsions occurred after the birth of the child. Again I resorted to jaborandi, and again I succeeded. The purgation was thorough. The woman recovered.

CASE II.—I was called shortly after to see a woman in puerperal convulsions. Two physicians had seen her, but one said to administer chloroform and she would come all "right," and the other refused to attend. The patient's convulsions were terrible, one every three minutes. The os was only partially dilated. Chloroform did not yield me very good results, so I resorted to jaborandi. Her skin was dry and hot. I threw up thirty minims of the fluid ext. of jaborandi per rectum. The oedema of the lungs which followed was so awful that I hope I may never see such again. I gave her up as lost; and, as the fetal heart had ceased, I determined to wait her death before delivering. To my surprise, after an hour of these terrible symptoms, and by the free injection of ammon. carb., my patient rallied, and became conscious for the first time in twenty-four hours. I sent for my father, Dr. John Burke, and she was delivered. Everything appeared well. She had lost much blood, but she appeared to be doing nicely. I left. Was called back in two hours. She had another convulsion. I gave $\frac{1}{10}$ grain of pilocarpine, and, although it stopped the convulsion and did not occasion much oedema, she sunk and died some hours after, spite of my most strenuous exertions.

CASE III. was a young man who, after being purged freely and cupped, still complained of head-

ache, and had, with a dry, harsh skin, all the initiatory symptoms of a convulsion. The hypodermic injection of $\frac{1}{4}$ of a grain of pilocarpine and an equal amount of Magendie's sol. of morphia, by the orders of my father, Dr. John Burke, produced a most profuse perspiration and an agreeable sleep, which lasted for six hours, after which all his symptoms disappeared, and, with the rational continuance of appropriate medication, he recovered.

MARTIN BURKE.

147 LEXINGTON AVENUE.

New Instruments.

NEW ARTERY AND TORSION FORCEPS.

By C. S. WHEELER, M.D.,

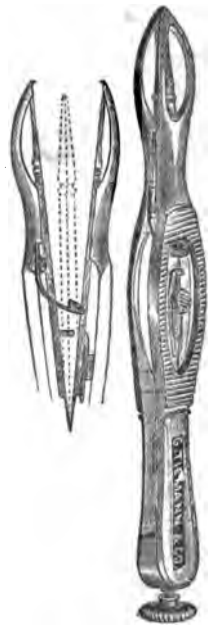
BRATTLEBORO, VT.

BELIEVING that the best results in surgical practice are due in some measure to the use of proper instruments, the author has devised this new forceps for the purpose of ligation or torsion of divided vessels, chiefly, however, to encourage the latter operation. It is needless to remark upon the advantage of checking hemorrhage without leaving a foreign substance—as a ligature—in the wound. That ligation of the larger arteries is the proper treatment, we believe; but that the smaller arteries may just as properly be twisted is an established fact.

The instrument illustrated is a combination which, we believe, all surgeons will appreciate. It consists of two pair of blades, the smaller, intended for torsion, revolving freely within the larger fenestrated pair; and when open, as shown in the cut, the inner pair is so arranged as to rest in a groove and follow closely the outer pair, so that when closed upon the artery the vessel is held by both pair. A ligature may then be applied, as with the ordinary fenestrated forceps; or, in case torsion is desired, the inside pair may be fastened by its slide-catch, the outer pair unlocked and the artery drawn out, held by the inside pair by the button at the base of the instrument; the outer pair is again closed on the vessel, holding it firmly while it is twisted by rotating the inside pair by turning the button at the base.

In case of emergency the button may be unscrewed and the inner forceps withdrawn, to serve the purpose of a small mouse-toothed forceps.

The instrument is manufactured by Messrs. Tiemann & Co., of New York City.



THE CRAVINGS FOR ALCOHOL.—The most reliable temporary relief for the cravings of alcohol, according to Dr. Kerr, is furnished by a full emetic dose of ipecac. Dr. Kerr is the advocate for red cinchona in the treatment of dipsomania.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from Oct. 26th to Nov. 1, 1879.

IRWIN, B. J. D., Major and Surgeon. Having reported for duty at these headquarters, he is assigned to duty at Fort Meade, D. T. S. O. 116, Dept. of Dakota, Oct. 31, 1879.

GIBSON, J. R., Major and Surgeon. Having reported at these headquarters, to proceed to Fort McHenry, Md., and report to the commanding officer for duty. S. O. 192, Dept. of the East, Oct. 28, 1879.

TREMAINE, W. S., Capt. and Asst. Surgeon, Fort Dodge, Kansas. Granted leave of absence for one month, on surgeon's certificate of disability, with permission to leave the dept. and apply for two months' extension. S. O. 214, Dept. of the Missouri, Oct. 27, 1879.

HALL, J. D., Capt. and Asst. Surgeon, Fort Concho, Texas. Granted leave of absence for one month, on account of sickness. S. O. 221, Dept. of Texas, Oct. 20, 1879.

Medical Items and News.

CONTAGIOUS DISEASES.—WEEKLY STATEMENT.—Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 1, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Oct. 25, 1879....	0	19	34	1	36	33	0	0
Nov. 1, 1879....	0	18	41	1	66	32	0	0

THE YELLOW FEVER.—The number of new cases of yellow fever developed in the city of Memphis from October 28th to November 4th, inclusive, was 5, and the number of deaths that occurred was 2. The total number of cases for this year to November 4th is 1,538, and the total number of deaths, 552.

No new cases have been reported since October 30th.

CHOLECYSTOTOMY.—The distinguished surgeon, Lawson Tait, of Birmingham, writes to Dr. Marion Sims: "You will be pleased to learn that I did a cholecystotomy on an unadherent distended gall-bladder, towards the end of August, and that the patient is now perfectly well. I removed one stone entire, but had to crush the other, it was so firmly impacted in, and adherent to, the orifice of the gall-bladder. I read the case before the Medico-Chirurgical Society of London."

THE LATE DR. EUGENE PEUGNET, OF FORDHAM, N. Y.—At a special meeting of the Yonkers Medical Association, held October 12, 1879, the following minute was adopted; a copy was ordered to be sent to the family of the deceased, and to be published in the medical papers:

"The Yonkers Medical Association desire to express their deep sense of the loss they have suffered in the death of Eugene Peugnet, M.D., of Fordham, N. Y., a member of the Association, who has so suddenly been taken from our midst, and to put upon record

also their appreciation of his character as a man, and of his marked professional attainments. He was ever a regular and faithful attendant upon the meetings of the Society, and was always ready to do his part, contributing largely to their scientific interest. By his eminent ability and peculiar qualification as a surgeon, he gave to the meetings a superior tone and dignity. He exhibited a rare example of one whose interest and aim were directed towards elevating the character of the profession which he so dearly loved. We desire as a body to offer to those whose home his death has made desolate, our sincerest sympathy, and to make our prayer that He who has visited them with trouble, would look with pity upon their sorrows, would remember them in mercy, and comfort them with a sense of His goodness, lifting up His countenance upon them and giving them peace.

R. A. JOYCE, M.D.,

ARCH. M. CAMPBELL, M.D.,

F. S. GRANT, M.D.,

Committee."

ENGLISH PHYSICIANS IN CANADA.—The English law allows persons registered as physicians or surgeons in England to practise in Canada with no other formality than that of registering themselves. A petition was presented last summer by the College of Physicians and Surgeons in Ontario begging that this might be done away with, and that English medical men might be obliged to submit to an examination for license. It was claimed that the law infringed on the rights of self-government conferred on the Province, and also that a person who had been only registered as a physician or surgeon in England might come to Canada and practise both branches.

The petition seemed to be framed more especially in the interest of the Canadian medical schools, and it has not been granted by the Home Government.

THE CROSSING OF SPECIES.—Dr. Yandell, in his letter from Paris to the *Louisville Medical News*, describes his visit to the Jardin d'Acclimatization. He was shown there a fertile mule which had borne half a dozen colts, some of them by zebras, some by an ass, and some by a stallion. There were also many crosses produced between the zebra and ass, the horse and zebra, etc. The second mule, however, was considered the greatest rarity.

RUSH MEDICAL COLLEGE, CHICAGO.—The Rush Medical College commences its winter session with four hundred students. Considering the number, the institution seems to be appropriately named.

THE LOWEST FORMS OF LIFE.—At a recent meeting of the Philadelphia Academy of Natural Sciences, Dr. Leidy referred to the structure of the low forms of infusorial life known as the amoeba, upon a study of which and allied creatures he had been engaged for some time past. (A large and profusely illustrated work on "The Lower Forms of Life," from the pen of Dr. Leidy, is to be published at an early date in connection with the last Hayden survey.) He said that the species of the true genus amoeba all possess a nucleus and a contractile vesicle. He believed that the latter organ, if it may be so called, performed the function of a combined heart and lung, as currents of liquid were probably received and expelled by it. It would be remembered that a form of life still lower than the amoeba, inasmuch as it is devoid of a nucleus, had been described by Haeckel under the name of protamoeba. Recently, Professor Butschli had described an interesting species which he had found parasitic in the intestinal canal of the common cock-

roach. Dr. Leidy was glad to be able to confirm all of Butschli's statements concerning this curious little creature, which he had observed in the situation indicated. He believed, however, that it should be placed in a genus distinct from the amœba, as it possessed permanent characters, which placed it between that genus and the protamœba. A distinct nucleus and nucleolus can be readily seen, but no trace of a contractile vesicle has, as yet, been discovered in it. In the typical amœba the protoplasm of which the animal is composed divides itself into two portions—a clear outer film and granular contents. In the new form no such division of substance can be seen during life, although the two portions separate after death.

These characters seemed sufficient to distinguish the creatures generically from those heretofore described, and Dr. Leidy therefore proposed for it the name of *endomœba*, retaining the specific name *blatta* proposed by Butschli. This rhizopod is of interest to the student of microscopic life, because of the ease with which it can always be obtained for examination, and because it forms probably the simplest and yet the most complete example of a living organic cell—a particle of protoplasm containing a nucleus and nucleolus, and nothing else.

In answer to a question of Prof. Koenig, Dr. Leidy stated that it was commonly believed by those who studied infusorial life, that all the forms containing chlorophyll gave off oxygen after the manner of plants. The belief was not founded merely upon the green color of the contents, but upon experiment. He did not think that this liberation of oxygen by animal matter was necessarily contrary to the logic of nature, because we have not been able to positively distinguish animal from vegetable life.

THE MEDIA, PA., TRAINING SCHOOL FOR CHILDREN.

—The annual meeting of the contributors to the Pennsylvania Training-School for Feeble-minded Children, was held recently near Media. The Hon. Edward A. Price presided. Dr. Alfred L. Elwyn, President, read his annual report, which urged the necessity of erecting a new asylum building, in connection with the institution, for what are called "custodial cases," by which poor children severely afflicted should receive not only shelter and care, but such development as their condition will admit of. The report, in urging the necessity for the erection of such a building, embodied an application for aid from the State.

Dr. Isaac N. Kerlin, Superintendent, read his annual report, which, speaking of the subject presented in the President's appeal, reiterated the demand for such increased facilities, and sketched a proposed plan of the organization, system of management, general workings, and the cost for an asylum building.

Allusion was made to certain events occurring during the year, among which were the following: The National Association of Officers of Institutions for the Feeble-minded, inaugurated at Media in 1878, held its Second Annual Session at the Illinois State Institution in May last, and was attended by Dr. Kerlin. The session was productive of much benefit to the general work. On the 23d of May last, the State Medical Society of Pennsylvania paid a visit to the school, and general satisfaction was expressed with the character and workings of the institution.

The improvements made during the past year embraced the erection of a three-story shop building of brick, measuring twenty by eighty feet, at a point safely distant from the main building. This is now used for mattress- and broom-making, and is well

suited to the requirements of any trades and occupations such as may be hereafter added. Other alterations are now being made for the improvement of the size and condition of the house.

Appended to the Report was a series of tabulated statements, giving the following showing of the condition of the institution: The number of children remaining in the home on September 30, 1879, was 316, 201 of whom were boys. The support of these inmates was as follows: Wholly supported by the State, 162, partially, 8; Soldiers' Orphan Fund, 2; by the city of Philadelphia, 16; by the State of New Jersey, 49; by Delaware, 1; by the free fund, 6; by parents or guardians, 55; and by the institution, 17. During the year 60 children were admitted, of whom 43 were males. The number discharged during the same period was 32—viz., 23 males and 9 females.

The treatment and condition of the children was thus described: Improving under training and treatment, 162 boys and 71 girls; stationary, 20 boys and 26 girls; deteriorating through age or disease, 19 boys and 18 girls.

The inmates of the house were thus classified: In school and training department, 99 boys and 55 girls; in the manual labor department, 64 boys and 40 girls; and in the custodial department, 38 boys and 20 girls.

The report was adopted as read, and the following officers were elected:

Patron.—His Excellency, Hon. Henry M. Hoyt, Governor of Pennsylvania.

President.—Alfred L. Elwyn, M.D.

Vice-Presidents.—One year: H. B. Tatham, Samuel A. Crozier; two years: MacGregor J. Mitcheson, Wistar Morris; three years: Geo. Martin, M.D., John M. Ogden.

Directors.—One year: Wm. F. Miskey, Isaac Jones, Chalkley Harvey, Edward A. Price; two years: Jas. A. McCrea, M.D., Joseph R. Rhoads, Evans Rogers, Samuel Bancroft; three years: Geo. Bailey, M.D. Wm. H. Miller, Isaac Worrall, Amos Bonsall.

Treasurer.—Joseph K. Wheeler.

Secretary.—Franklin Taylor.

Superintendent.—Isaac N. Kerlin, M.D.

SPONTANEOUS CURE OF INVOLUTION OF UTERUS.

Dr. W. H. Mather, of Suffield, Conn., writes: "Mrs. Eliza — had a miscarriage in December, 1868; flowed until March 15th following, during all of which time was without medical attendance. Was regular then until September 25th, 1879; flowed ten days. I was called and found the patient sitting, but bloodless and unable to walk. On examination, found the womb involuted to such an extent that the top protruded through the os. I failed to return it with means at hand; gave her opiates, and ordered rest. Saw her again the third day, and what I had failed to do nature had done, and restored the organ. The patient believed she retained a portion of the afterbirth from December until September, when she had violent pains and excessive flowing, with the discharge of a fleshy mass which she believed to be a portion of the placenta. I believe the uterus was involuted during ten days."

THE NEW YORK THERAPEUTICAL SOCIETY.—At an annual meeting, held October 17, 1879, the following officers were elected for the ensuing year: Dr. A. Jacobi, President; Dr. Robert F. Weir, First Vice-President; Dr. Mary Putnam-Jacobi, Second Vice-President; Dr. Andrew H. Smith, Recording Secretary; Dr. E. C. Seguin, Corresponding Secretary and Treasurer; and Drs. V. P. Gibney and H. T. Hanks, Members of the Council.

FOREIGN QUININE.—It is stated that some of this quinine, offered as pure, contains twenty per cent. of cinchonidia in it. As a great deal of foreign quinine is being put upon the market now, physicians can bear the fact in mind. Cinchonidia is the least powerful of the four alkaloids.

A CASE OF POISONING BY CHLORATE OF POTASSIUM.—J. K. Boude, M.D., of Carthage, Ill., writes: "A healthy, robust girl, aged two years and eight months, gained access to a bottle of chlorate of potassium, and ate about three drachms of the crystals. As she had partaken of food a short time previously, and drank largely of water immediately afterwards, no symptoms of poisoning showed themselves for two hours, except that she complained of a pain in her stomach about half an hour afterward, which was supposed to arise from indigestion, and was treated with paregoric.

Two hours after she had ingested the drug, she vomited very freely, ejecting from her stomach the food and water that she had taken. She passed from her bowels at the same time a large quantity of greenish mucus, followed by a clear mucus. After this she became much prostrated, with a feeble pulse and a bluish, ashen hue of countenance. It was not discovered until this occurred that she had taken so much of the drug; and a physician was then called in.

Under the use of alcoholic stimulants the prostration soon passed off, and she commenced playing, and continued to do so for more than two hours; but she seemed to be in a state of excitement, and played boisterously.

She then slept for two hours, and on waking, asked for water and ate some. She seemed very restless, and her countenance still had the bluish appearance.

At 8 P.M., eight hours after she had taken the drug, she vomited again, and became very much prostrated, and was thought to be dying; but she again rallied under the use of stimulants. The matter ejected was simply the water and food she had taken. She slept tolerably quietly until midnight, asking for water frequently; at that hour her bowels moved again, the passage being greenish water and slime, after which her extremities became cold, and the pulse became imperceptible at the wrists. Stimulants were freely administered, but without effect. At 2.30 A.M. she vomited a large quantity of water, after which she sank very rapidly, and died quietly at 2.45 A.M., just fifteen hours after she had taken the drug.

"She complained but once of pain in the stomach and bowels, although frequently asked. During the first part of the night her heart beat with great force, so as to jar the hand when placed over the precordial region, and her pulse was full and bounding. The urinary secretion was increased during the afternoon, and seemed irritant to the bladder; and there was no suppression nor abnormal appearance of the urinary secretion."

THE SICKNESS-RATE IN WISCONSIN.—The proportion of sickness to death in Wisconsin, as given by the State Board of Health, is fifteen to one. The rate usually given for a population is twenty-seven to one. Either the returns are incomplete, or the Wisconsin doctors treat their patients very vigorously.

PROF. VIRCHOW has become a member of the Society of Americanists, an archaeological association which devotes itself to studying the pre-Columbian history of the American continent.

ALCOHOL IN BRAIN TISSUE.—According to Dr. Maurice Perrin, the brain of a dog killed while com-

pletely intoxicated contains two per cent. of alcohol. Dr. Perrin does not state that the same proportion exists in man. Applying the figures given, however, it might be inferred that one-tenth of the alcohol that a man drinks unites with his cerebral tissues.

CLAUDE BERNARD'S TREATISE ON ANATOMY.—This much-talked of work has been curiously disposed of. The privilege of publishing it in the future was sold at auction in the office of a Paris notary on the sixth of October. The starting price was twenty thousand francs for the letter-press and five thousand francs for the illustrations.

MEDICAL WOMEN.—Dr. Rosa Well, a young lady from Vienna, has been appointed by the Faculty of the University of Bern, assistant lecturer to Professor Pfüger in the branch of ophthalmology. Woman has been said before to have made a specialty of the eye, and her labors are now receiving a scientific recognition.

RABIES.—Canine rabies can be transmitted to the rabbit; and M. Gattier, of Paris, has taken advantage of this fact to study the effects of antidotes to the poison. None have been as yet found. The possibility of inoculating the poison in the rabbit, however, affords a convenient way of testing the question as to whether a dog is rabid or not.

LARYNGEAL PHTHISIS.—At the last meeting of the British Medical Association, Dr. Morell McKenzie read a paper on this subject, which showed that either our English brethren are much behind us in the knowledge of this affection, or the disease has a different course in New York. His conclusions were: (1) that laryngeal phthisis was due to the presence and subsequent breaking down of tubercles in the mucous and submucous membranes; (2) that laryngeal phthisis is essentially a secondary phenomenon, and always occurs as a sequel to pulmonary phthisis; (3) that the prognosis is always unfavorable, the ordinary duration of life after the throat symptoms have become troublesome being from twelve to eighteen months.

None of these conclusions, we believe, are accepted in toto by the best American laryngologists.

RECTAL HEMORRHAGE IN INFANCY.—Dr. A. W. Bell, of Moodus, Conn., writes: "In a recent number of the RECORD I notice an article from Dr. Manley, of Lawrence, Mass., on 'Rectal Hemorrhage in Infancy.' I was reminded, by reading it, of two similar cases of my own. On September 23, 1873, I attended Mrs. D— in her first pregnancy. On the day following the confinement, the child vomited blood and passed the same per anum. I made no record of the case at the time, and do not now remember the treatment; however, the child died on the morning of the 25th. At the post-mortem, a spot in the stomach was found near the pylorus, from which we supposed the blood to have originated. The day previous to the one on which the mother was taken in labor, she fell backward from a chair on which she was standing, and sat down on a door-sill. That night she was taken with pain, which continued for forty-eight hours without uterine contraction, and which resisted all measures used for its relief. At the end of this time the uterus contracted, and the child was delivered within twelve hours.

The second case I was called to see when the child was three days old, on October 25, 1878. In this case there was no vomiting of blood. I prescribed gallic acid internally, but the child lived only two hours after. There was no post-mortem."

VIRCHOW AS A MAGICIAN.—Prof. Virchow, while engaged with Dr. Schliemann in making excavations

at Hissarlik, Asia Minor, found several of the workmen suffering from an obstinate fever. He took them in charge and cured them. His reputation as a magician was at once established, and in a short time the sick from all the country round flocked to him, so that he had a clinic each morning in front of the wooden shanty where he slept. Before leaving he had dug a deep hole, into which he descended every day with a candle for purposes of exploration. All his movements were watched by the admiring crowds. When he went away the hole became filled with water, and now it is called by the people "Virchow's Well." Every day the sick are brought to it, and drink or wash in the healing fluid. A whole country consider Virchow the greatest magician that ever lived.

THE ENGLISH NAVAL MEDICAL SERVICE.—At a recent competitive examination of candidates for medical commissions in the Royal Navy, ten candidates presented themselves. Three were declared physically unfit; all the rest passed the examination. This presents a marked contrast with the naval examinations in this country, to which there are often thirty or forty applicants for two or three vacancies.

ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS.—This association held its annual meeting at Baden-Baden, during the week from Sept. 18th to Sept. 24th. The work was done in twenty-three sections. Among the prominent medical contributors were Profs. Jürgensen, Benedikt, Erb, Lücke, and Eulenberg.

MEDICINE IN LOUISVILLE.—There are in Louisville, according to the *Medical News*, five medical journals and four medical colleges; and we are informed that there are still from ten to twenty members of the profession who haven't a professorship. Two of the colleges which claimed to be separate, but occupied the same building and were run by one faculty, have now openly separated and have each its own building and professors.

CHOLERA IN INDIA.—There is a severe epidemic of cholera in British Burmah.

PILOCARPINE IN ECLAMPSIA.—Dr. Bidder reported in the *Vienna Medico-Chirurgical Review* of October, 1878, two cases of puerperal eclampsia cured by the use of pilocarpine. The attacks occurred both before and after delivery. The remedy was given in doses of about three grains; chloral was given at the same time, however.

FRENCH ASSOCIATION TO PREVENT THE ABUSE OF TOBACCO AND ALCOHOL.—An association with the above name has been organized in Paris, M. Frederic Passy being President. A prize of 200 francs and a medal is offered for the best work showing the evil effects, moral and physical, of the abuse of tobacco and alcohol.

A NATIONAL BUREAU OF VETERINARY INSPECTION.—At the annual meeting of the American Veterinary Association, held recently in this city, a proposition to establish a National Bureau of Veterinary Inspection was made. It was proposed that the bureau have similar powers, as regards animals, with those possessed by the National Board of Health. The disease which, it is thought, more especially calls for such an organization is pleuro-pneumonia. It is urged that recent events have shown how valuable it would be to large commercial interests to have a central bureau that might keep cattle dealers and shippers constantly informed as to the prevalence of contagious diseases. Such an arrangement would prevent panics and render impossible the prohibition of American cattle by European governments upon mere sensational reports.

It is, on the other hand, said that such information

can be secured without government aid. Furthermore, the present status of veterinary medicine is so undefined that a National Bureau would not have much more of a legitimate professional basis than a National Bureau of Barbers to keep themselves informed upon syphilis. There is in this country only one veterinary college which exists under legislative sanction, and which can grant genuine diplomas. Veterinary practitioners, therefore, are composed of three classes: persons who have graduated from regular foreign and the one regular home school; persons who have graduated from other home schools and have received diplomas which are virtually only certificates; and, third, persons who have had no regular education whatever.

It is feared that the establishment of a National Bureau out of these elements would produce endless quarrelling without securing any valuable results.

DR. E. S. GAILLARD, the distinguished editor of the *Richmond and Louisville Journal*, and *American Medical Bi-Weekly*, has removed to this city, where he will reside in future. His journals will also claim New York as their abiding place. With best wishes for his success, we extend to him, on the part of the profession here, a hearty welcome.

TRACHEOTOMY FOR SAND BURR IN TRACHEA.—Dr. J. B. Hibben, of Topeka, Kansas, writes: "On Saturday, August 27th, I was called, in company with Drs. Sheldon and Gibson, to see a boy of six years. Upon examination, found that he had, two days previous, while playing with a tin whistle, drawn into his trachea a large 'sand burr,' which produced severe coughing, with partial asphyxia, having almost complete aphonia and great difficulty of breathing. We found mucous râles in the lungs, with diaphragmatic breathing; being confident that the foreign body was still in the trachea, the child was etherized, and tracheotomy performed, which permitted free and easy breathing. The foreign body not presenting itself at the opening, a tracheotomy tube was introduced for half an hour, then removed, and a small, soft sponge-probong introduced through the wound upward, dislodging the burr and pushing it forward into the mouth, from which it was easily removed. The patient made a rapid and favorable recovery, the wound healing by first intention."

FATAL RESULT IN THE TREATMENT OF POPLITEAL ANEURISM WITH ESMARCH'S BANDAGE.—When a new surgical procedure is introduced, the cases in which it fails should not be overlooked, and we therefore make note of one that is reported in the *Lancet* of July 26th. A patient, aged forty-eight, was admitted to St. Bartholomew's Hospital, suffering from a popliteal aneurism of eight months' standing. He was under the care of Mr. Timothy Smith. He was treated by Esmarch's bandage, both with and without chloroform, with the result of twice stopping the pulsation, which, however, soon returned. After waiting a few days another trial was made. The elastic bandage was applied below and above the tumor, which was itself covered by a flannel bandage. These bandages were removed in an hour, and digital compression and the tourniquet applied for three hours. Then the elastic bandages were reapplied for an hour and a half, and at the end of that time, the tourniquet being put on, they were removed, and the tumor was found to be solid. In a short time, however, pulsation returned. Bandage and tourniquet were again applied, until the leg was too tender and painful for further treatment of this kind. The tumor continuing to pulsate, the femoral was ligated; secondary hem-

orrhage occurred, and it was ligated again, but the man died with evidences of septicæmia.

The chief peculiarity about the case, pathologically speaking, was the unstable nature of the clot obtained by compression. The man had heart disease, and had had syphilis, and these were probably factors in producing the result.

LIME-WATER AS A SOLVENT OF BLOOD CLOTS IN THE URINARY BLADDER.—Dr. William A. Byrd, of Quincy, Illinois, writes: Dr. B. W. Richardson and other writers have advocated systemic alkaline treatment for heart-clot, and some of the German writers have proposed and used lime-water as a solvent of false membrane in the air-passages, but I believe that Dr. J. H. Ledlie, of Pittsfield, Illinois, is the first to apply lime-water locally to blood-clots in the bladder to cause their dissolution. Having perfect faith in Dr. Ledlie's ability, and considering the treatment to be of great value in cases of blood-clot, is my excuse for publishing his letter to me, that the reader may judge of its value:

"PITTSFIELD, ILLINOIS, Sept. 19, 1879.

"DEAR DOCTOR—I have a patient, a man who for years has suffered greatly from hematuria. The blood comes from the kidneys. At times the hemorrhage is very profuse, and clots in the bladder. Heretofore I have always succeeded in washing it out with a double-current catheter. Last Saturday I was called to see him. He had lost a great quantity of blood, and was suffering very much from vesical tenesmus. I passed my catheter and injected a stream of water. All at once the stream returning would stop. By withdrawing the instrument I could start it again, but he insisted there was a foreign body in there. I must say, that the previous day he had experienced excruciating pain along the course of the ureter. I suspected stone and sounded him, but could not discover one; still my instrument touched something. I repeated the washing out of the bladder until the water returned colorless. I then made up my mind that there was a clot, with the coloring-matter washed out; and recollecting your account of dissolving the false membrane with lime-water, I threw in one-half pint of lime-water, allowing it to remain half an hour. When it passed off it resembled what you describe as the appearance of the false membrane after lying in lime-water. He also passed a large piece of fibrin which had evidently been acted on by the lime-water, although not sufficiently so to dissolve it entirely. Had it not passed away, I am convinced another injection would have dissolved it entirely. He is now quite comfortable, all sense of a foreign body in the bladder having passed away. J. H. LEDLIE."

ANÆSTHESIA FROM THE COMBINED ACTION OF CHLOROFORM AND MORPHINE.—A review of the present state of evidence upon this question has been given by Dr. Guibert, of Paris, in *Le Concours Médical*. The French surgeons consider that all the danger in the use of chloroform comes from producing too profound unconsciousness. It has been the aim of a number of experimenters to bring about in every case a condition of anæsthesia, with consciousness still continuing; such a condition as occurs not very rarely during ordinary administrations. The administration of morphine before the chloroform tends, it is thought, to secure this result.

It is claimed further, that morphine employed before chloroform diminishes the irritation to the air-passages, caused by the anæsthetic vapor, an irritation which, by its reflex influence upon the heart, may

prove dangerous. Finally, it is asserted that when morphine is given before the chloroform the danger from shock is much lessened, and that the frequency of vomiting is also diminished. The procedure followed by the believers in these statements is, to give a quarter of a grain of morphine; then in ten or fifteen minutes to administer the chloroform. Anæsthesia is produced sometimes within two minutes.

It should be remembered by American practitioners who use ether, that death has occurred from using morphine in connection with that anæsthetic.

MEDICAL EXPERT TESTIMONY: ITS DEFICIENCIES.

—The *Boston Medical and Surgical Journal* publishes the first part of a report upon this subject made to the Massachusetts Medico-Legal Society in June last. The committee appointed to examine the subject included Attorney-General Marston (chairman), and Prof. H. P. Bowditch. Their report was only partial, and embraced a statement of the evils that encumber the present system of medical-expert testimony. These are: first, a most conspicuous partiality, even in questions of a purely scientific character, the experts being practically retained upon one side or the other, and expected to help that side; second, the employment of pretenders and charlatans; third, the fact that the expert's compensation often depends upon the result of the trial; fourth, a lack of integrity on the part of the expert, even when he is a person of ability. Finally, although there are experts who are both honest and able, there is no system by which their services can be equally applied, for only the party which has money can secure such persons, and the other side must get what they can. The committee have been granted further time to devise measures of reform for this condition of affairs.

A NEW MEDICAL COLLEGE has been organized at Little Rock, Arkansas, to supply a want long felt.

DIPHTHERIA IN LOWER ANIMALS.—In a house at Ogdensburg, N. Y., five children were ill with diphtheria. Three kittens who had been playing with them from time to time took the disease and died. Post-mortem examination showed diphtheritic membrane in their throats.—*Medical and Surg. Journ.*

CHLOROSIS; TREATMENT WITH OXYGEN AND IRON.—The researches of M. HAYEM, as given in *Le Concours Médical*, covering several years, demonstrate that in chlorosis there is not only a diminution in the number of red blood-globules, but an individual alteration of each globule. This alteration consists of a diminished amount of the coloring matter hemoglobin. Iron has a specific action in removing this condition.

As in chlorosis there is generally loss of appetite, and as the preparations of iron stimulate the appetite, it has been claimed that the good they do is largely through this means. To disprove this, M. Hayem treated a number of patients with insoluble preparations of iron, without relieving the disease. He then treated other patients with inhalations of oxygen, giving about three gallons a day. The oxygen had a marked effect in stimulating the appetite and digestive functions. The patients ate enormously, and increased in flesh; nevertheless, they preserved their pallid and anemic appearance. The microscopic appearances of the blood continued the same, and on suspension of the oxygen they soon relapsed to their former condition. M. Hayem concludes that iron alone can restore the red blood-globules to their natural condition, and that oxygen is a most valuable adjuvant in the treatment.

Original Lectures.

A CLINICAL LECTURE ON URINARY INFILTRATION AND ABSCESS.

By ROBERT F. WEIR, M.D.,

SURGEON TO THE NEW YORK AND ROOSEVELT HOSPITALS.

GENTLEMEN:—I have been able to show you in the past month several cases of urinary abscess and extravasation. They have, however, varied so considerably in their clinical appearances, that it is proposed to-day to ask your attention to certain points connected with this subject, somewhat more in detail than has yet been done. You have seen in Ward O a number of cases in which an oval tumor, generally without fluctuation, presented itself in the median line of the perineum, with its longest diameter antero-posteriorly, sometimes very tender to the touch, and varying in size from a small marble, in one instance, to a hen's egg, in several others. Nearly all of these were associated with stricture of the urethra, and after incision allowed urine to flow out through the wound. In one case, however, the tumor resulted from a laceration of the urethra produced by a kick in the perineum.

In the same ward, and only recently, you saw a case wherein was presented a scrotum swollen to the size of a child's head, shining from distention, and of a pinkish, semi-translucent hue, which had followed, as the patient said, one of these swellings in his perineum. You were, however, more struck with the appearance presented by Thomas Graham, who entered the hospital on the 25th of August, having some twenty-four hours previously been kicked in the perineum. In this man we found not only the scrotum distended enormously, but that its surface was marked by greenish patches of commencing gangrene, and that upon the lower abdominal wall were to be seen several streaks of redness. Palpation also revealed the emphysematous crackling of the gases evolved in the rapidly progressing inflammation and tension, and, you will recollect, that, notwithstanding the free incisions resorted to, a fatal termination speedily ensued.

Some of you may also remember in this connection the interesting case that came in last spring to my wards in the Roosevelt Hospital, where the patient, who had a tight stricture, had also a large tumor in the perineum, and two good-sized patches of gangrene, accompanied by emphysema, on the abdomen, the lower part of which was moderately reddened, and in one or two places gave evidence of fluctuation. But, and be kind enough to mark this, there was no involvement of the scrotum whatever. The perineal tumor could be felt running forward beneath the scrotal tissues, and on incising it several ounces of clear urine were discharged from it. The finger was then passed into the cavity, which was bounded by the sheath of the penis, and carried upward nearly its full length, and after freely incising the gangrenous patches on the belly, and giving vent to a quantity of the same almost unaltered urine which had dissected up the common fascia, a second finger introduced downward could touch the finger introduced from the perineum at the left side of the penis, near the scrotum. This case terminated favorably.

Lastly, I beg to recall to your minds the patient who was knocked down on the elevated railroad by an engine, the blow being received on the posterior part of

the perineum, the man being at the time in a stooping position. In his case, you will recollect, there was hemorrhage from the urethra and inability to pass water, though the house-surgeon passed in a catheter full length without difficulty, but without evacuating any urine. This failure was thought to be due to the eyes of the instrument being filled up with clotted blood, and, finding some dulness on percussion over the pubis, he then resorted to aspiration, and withdrew some five or six ounces of bloody urine. When I saw the man at my visit, I thought from the latter fact and from the tenderness of the abdomen and tympanites that were coming on, with the other signs of peritonitis, such as vomiting, etc., that we had to deal with a case of ruptured bladder, and it was therefore decided that a perineal cystotomy should be made, with, if necessary, a hypogastric opening into the peritoneum, for the purpose of washing out and draining this latter cavity, after closure of the rent in the bladder, if possible, as has lately been done by Mr. Heath, of London. But death resulted unexpectedly during the administration of the ether, from an infrequent cause, viz., from impaction of food in the larynx in the vomiting which is often induced by the anæsthetic when given upon a full stomach.

No autopsy was allowed, but I was permitted to make an incision in the hypogastrium. I found thereby the explanation of the injury. For, after cutting through the muscular planes, I came into a cavity containing over four ounces of bloody urine, but beyond this I felt and soon opened into a partly distended bladder containing eight or ten ounces of clear urine. The aspirator-needle, therefore, had not gone into the bladder, but into a subperitoneal cavity. On passing my finger into the bladder, I could not feel anywhere any rent; its walls were in tact. While my finger was yet within the organ, I had a catheter introduced through the penis, and recognized that it could be passed to the left and also to the right of the bladder, into spaces that were probably continuous with that in the hypogastrium.

These numerous cases show, clinically, that extravasation of urine can occur in four ways:

1. Localized as a centrally situated tumor in the perineum.
2. As a tumor of considerable size in the perineum, with diffusion of urine over the abdominal walls without involving the scrotum.
3. Diffused into the scrotal and abdominal tissues.
4. Diffused under the pelvic fascia or peritoneum.

Now, to understand these several varieties, certain anatomical facts must be recalled, and this is in reality the point of my remarks. Generally, in the works on anatomy in use here and in England, the description of the fascia of the perineum is given in this way—I quote now from Gray: "The deep layer of the superficial fascia is thin, aponeurotic in structure, and of considerable strength, serving to bind down the muscles of the root of the penis. It is continuous in front with the *dartos of the scrotum*; on either side it is firmly attached to the margins of the rami of the pubes and ischium, external to the crus penis and as far back as the tuberosity of the ischium; posteriorly it curves down behind the transversus perinei muscles, to join the lower margin of the deep perineal fascia."

But this account is erroneous, and in order that you may understand the course of the perineal fascia in connection with extravasation of urine, I must beg you to follow me in these diagrams which I now show you. No. 1 represents schematically the points

which you will find only clearly detailed in the more recent works on genito-urinary surgery. No. 2 is taken from Tillaux.* I do not mean to say that Tillaux re-

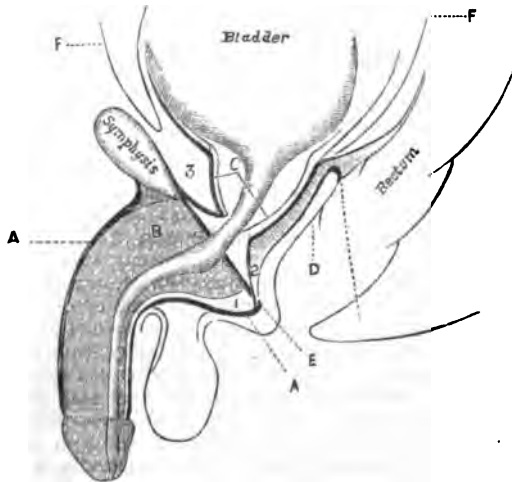


FIG. 1.—Representing the fasciae involved in urinary infiltration (partly schematic). 1. Locality of extravasation of urine anterior to the triangular ligament; 2. Locality of extravasation of urine posterior to the triangular ligament; 3. Locality of Subperitoneal extravasations; A. Buck's fascia, or deep layer of the superficial perineal fascia; B. Triangular ligament, anterior layer; C. Pelvic fascia forming posterior layer of the triangular ligament and covering upper surface of the levator ani muscle; D. Fascia (ischio-rectal or anal) lining under surface of levator ani muscle; the dotted line indicates the ischio-rectal fossa; E. Tendinous centre of the perineum; F. Reflexion of peritoneum, attached posteriorly to the pelvic fascia.

vealed these facts to us. They were known long, long ago. Velpeau, in 1826, correctly described the distribution of the fascia.† And so did Richet‡ in 1842. But it was not until it was demonstrated to us by Dr. Buck, of this hospital, in 1846,§ that it became generally known. After that period the French surgeons described it as Buck did, or very nearly so—Jarjav, one of the most distinguished of their anatomists, giving the American surgeon due credit for his investigations. Since then it has been regularly and correctly delineated by Cruveilhier and others of that school, but in England very little attention has been given to it. For instance, Thompson,|| in his work on stricture of the urethra, that fountain whence we all draw, speaks of the forward continuation of it as Gray does, and erroneously explains the course of such infiltrations and abscesses. On our side of the water, however, Bumstead quotes Dr. Buck's description in extenso, and Van Buren and Keyes describe it carefully. Now let us return to the diagram, and see wherein this differs from Gray. Notice the black line indicating the deep layer of the superficial perineal fascia. Instead of being lost in the scrotum, it runs forward from its junction with the triangular ligament, covering over all the perineal muscles, except the sphincter ani, and is continued along anteriorly as far as the glans penis, being closely applied to the sheath anterior to the scrotum. Or, in Dr. Buck's language, observe that "the suspensory ligament from above, and the perineal fascia from below and laterally, form one contin-

uous membrane with the sheath, inclosing the corpus cavernosum in its cavity, and embracing the corpus spongiosum urethrae between two layers, one of which passes above and the other below it."

Here we have a satisfactory explanation of the numerous perineal tumors which you have seen, and which were embraced in our first and second divisions. The small extravasation resulting, say, from the giving way of the urethra, behind a stricture from either ulceration or from injury by an instrument, escaping from an opening thus made at its usual locality anterior to the triangular ligament, passes into this pouch that has just been described, and is there held for a time, when by distention or by inflammatory softening, the fascia gives way and allows the urine entrance to the scrotum and to the abdominal walls.

It occasionally happens that an extravasation forces itself into the tissues of the bulb of the corpus spongiosum so rapidly, or so extensively, as to interfere with the circulation of the glans, and to produce the characteristic gangrenous spot there.

But I must ask you now to consider for a moment this second figure. From it you will see that while the pouch or compartment formed by this forward fascial prolongation stretches from one pubic bone to the other, yet it is divided into three portions by the continuation of a part of the fascia around the bulbous part of the corpus spongiosum to the triangular ligament. In the outer compartments are to be found the erectors penis muscles. I also show you this dissected specimen, in which it will be perceived that I have forced some melted tallow under this fascia, just in advance of the transversus perinei muscle of one side.

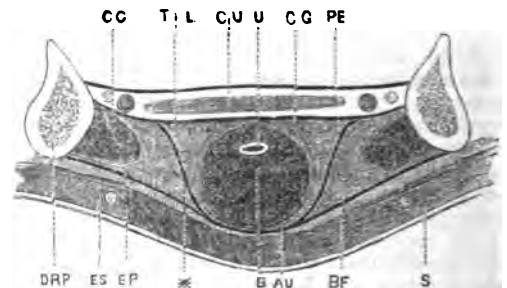


FIG. 2.—Representing a horizontal section of the perineum—after Tillaux. BF, Buck's fascia; * Fascia investing the bulb of the corpus spongiosum (B), and dividing the enclosure into a middle and two side compartments; U, Urethra; CG, Cowper's glands; AU, Accelerator urine muscle; TL, Triangular ligament, anterior layer; PP, Pelvic fascia or posterior layer of the triangular ligament; CU, Compressor urethrae muscle; CC, Corpus cavernosum; EA, Erector penis muscle; DRP, Descending ramus of the pubis; FS, Fascia superficialis communis; S, Skin.

The fascia, although a thin one, is quite strong, and you can plainly see the colored injection beneath. It runs as far forward as the anterior junction of the scrotum, and is confined, you see, to the central part for the cavities containing the erectors have been opened and are free from the injection. Over the bulb an incision has been made, and you will see that the tallow has lifted up the accelerator urine, and thus the resisting power of the fascia is increased.

The explanation of the case of extravasation, where there was a tumor in the perineum and where there was at the same time invasion of the abdominal wall and not of the scrotum, is to be found in the statement of Richet, who, in alluding * to Dr. Buck's

* *Traité d'anatomie topographique*, p. 1035.

† Velpeau : *Traité d'anat.-chirurg.*, vol. II., p. 269.

‡ *Annales de la Chirurgie*, 1842, t. vi. *Traité d'anatom.-chirurg.*, 1894, 3d ed., p. 609.

§ *Trans. Am. Med. Assn.*, vol. I.

|| *Stricture of the Urethra*, 3d ed., pp. 31, 291, 294. So also does Gross : *Urinary Organs*, 1876, and Vollemler, 1868, p. 406.

* *Op. et loc. cit.*

investigations, differs in two particulars: first, that the fascia is not distinct up to the glans penis, and in this, as before stated, I agree with the French observer; and second, that, instead of Buck's fascia, as it is called, completely investing the penis, this fascia in the neighborhood of the suspensory ligament thins very much, and terminates in a cellular tissue continuous with and undistinguishable from the fatty and cellular layer of the hairy pubes.* It was by this route, therefore, that the urine gained the abdomen without involving the scrotum.

If I have not fatigued you with these minutiae, I would now like to ask your attention, before explaining to you the last cited case, to the posterior layer of the triangular ligament in our first diagram. There you will see that this layer is in reality formed by the prolongation of the pelvic fascia forward from the prostate, which fascia, moreover, covers in *superiorly* the levator ani muscle. The inferior border of this posterior layer of the triangular ligament, you will see, terminates on a line with the tendinous centre of the perineum; from this point starts, moreover, backward and upward, a thin, weak, and in some places an imperfect fascia, which lines the *under* surface of the levator ani, and runs up to the top of the ischio-rectal fossa. Hence, you can appreciate that any extravasation of urine, or abscess formed behind the anterior layer of the triangular ligament—that is to say, in the erroneously called cavity of the triangular ligament, will, from inability to pass forward from the great resistance there found, proceed backward through the posterior layer, here much thinner, and then into the substance of the levator ani, and thus readily find entrance to the ischio-rectal fossae, where it may be for a time unrecognized, or emerge at the anus.

Cases of this sort are very rare—more so than most of you would imagine; for doubtless the idea is prevalent with you that strictures are commonly found in the membranous portion of the urethra, and that the rupture or ulceration that initiates an extravasation, being generally behind such narrowings of the canal, infiltrations or abscesses must of necessity occur behind the anterior layer of the triangular ligament. This is a wrong impression, if it exists, for the membranous urethra is rarely, if ever, the site of stricture;† on the contrary, it is the bulbous urethra, for one inch anterior to the triangular ligament, that is the favorite site of tight strictures, and the nearer one approaches the bulbo-membranous junction the less frequently is a stricture encountered. Not only is this true of inflammatory strictures, but also of traumatic strictures.

This latter fact has recently been clearly demonstrated for us by a French observer, Terillon by name, in an excellent thesis on Ruptures of the Urethra.

I have myself never seen any tumor that presented clinical evidences of being between the layers of the triangular ligament, and, indeed, would be inclined to doubt the accuracy of those who describe such,

mainly from the intimate adhesion that exists between the layers of this ligament. I should expect to find in such a case a small deep tumor close to the anus (for the tendinous centre is less than half an inch from this opening), and also by the finger introduced into the bowel to readily recognize the swelling in the easily felt site of the membranous urethra.

Practically, when a urinary abscess or infiltration occurs behind the triangular ligament, its starting-point is generally a false passage made by incautious instrumental manipulation. An instructive illustration of this was seen in a case that occurred a short time since in the Roosevelt Hospital, in a patient who shortly after his entrance complained of retention of urine, which he said had followed the use of dilating bougies used within a couple of weeks. He had had repeated chills, but no perineal tumor was to be detected. After aspiration had been resorted to several times, a fine filiform bougie was introduced into the bladder, and external perineal urethrotomy performed rather than internal urethrotomy, as a small amount of edema and softness over the side of the prostate led us to expect at the same time to meet with an abscess. In fact, after incising the urethra in front of the stricture, it was found that the bougie had not gone through the latter, but alongside it in a false passage, through which pressure in the rectum forced out a few drops of pus. This path was enlarged backward and allowed the escape of several ounces of pus from a cavity into which the finger passed well up toward the bladder, and traced out clearly the surface of the partly denuded rectum. A drainage-tube was inserted into the pus-cavity after the section of the stricture had been completed without a guide—and thus making the second time I have ever been compelled to resort to perineal section.

Finally, gentlemen, the explanation of the case of subperitoneal extravasation is, that the injury inflicted, coming as it did from behind forward, tore through, in all probability, the membranous urethra and its superior investment of the pelvic fascia, and thus opened up a way underneath the peritoneum for the fluid to pass (indicated by the figure 3 in diagram No. 1). This injury is an unusual one, and I regret that the absence of an autopsy prevents any positive statement as to the course of the urine, for, had I not had the opportunity to explore the bladder, I should have, as before stated, thought it a rupture of this viscus. Whether the laceration had been caused by a fracture of the ramus of the pubis, which is the usual cause of lacerations in the membranous urethra, could not be determined. Remember, however, that subperitoneal infiltrations are most commonly the result of either a lesion of the bladder or possibly from a too extensive incision in the prostate in lithotomy.

It will be understood by you all, I trust, that the more minute the opening is in the urethra, or the more slowly the urine is forced out of its normal channel, the more likely is the inflammatory process to limit the extent of the infiltration, and to confine it within the bounds of the ordinary urinary abscess. It is in the rupture of a urethra with the associated great pressure of a distended bladder that we are most apt to see the rapid spreading of the urine, mapping out for us distinctly the enclosing fasciae. Finally, these remarks may be summarized in this way: first, that nearly all, if not quite all, perineal extravasations occur from ruptures anterior to the triangular ligament; and second, that a fistulous opening anterior to the line of the tuberosities of the ischia comes, in all probability, from the urethra, and when behind this line, from the rectum.

* Tillaux says, it is imperfect on the dorsum of the penis, at the level of the suspensory ligament, p. 1040.

Richet says that it is by this route that the urine usually gains the scrotum, but it can also infiltrate these tissues by perforating Beck's fascia by ulceration.

† The liability of this part to stricture appears to diminish as it approaches the junction, where it is less common; while behind this point it probably never exists, except from traumatic cause. In 215 cases of stricture in this region, only one was found in the membranous urethra.—Thompson: Stricture, 3d edition, p. 98.

Shaw, Med. Chir. Trans., vol. xii., states that in more than a hundred dissections he had not seen a stricture or narrowing of the canal posterior to the triangular ligament.

Picard, Maladies de l'urèthre, p. 448, says, concerning infiltrations of urine, that the most frequent place of rupture is in front of the membranous region, and that the extravasations advance nearly always into the "inferior pocket of the perineum" (Buck's fascia).

Original Communications.

REPORT OF THE RESULTS IN THIRTY-ONE CASES OF PHTHISIS

TREATED AT AIKEN, S. C., DURING THE SEASON
1878-79.

By W. H. GEDDINGS, M.D.,

AIKEN, S. C.

THE climate of Aiken has been often and fully described, but thus far the results of treatment at that well-known health-station have never been laid before the profession.

The publication in the *MEDICAL RECORD* last spring, by Prof. Loomis, of a few cases successfully treated in the Adirondack region, determined the writer to carry out a resolution made several years ago, to publish each year the results in all the cases of consumption that came under his observation in the course of the season. In preparing these cases for the press, it was found, however, that some of them were so imperfect—the patients presenting themselves only once or twice—that their publication would be only a waste of space. The number thus omitted is quite considerable, constituting the large majority of cases presenting themselves for advice. The case histories are taken from my daily record; and not being intended at the time of their entry for publication, the symptoms given are, in many instances, more or less incomplete. It is thought, however, that they are sufficiently full to remove all reasonable doubt as to the diagnosis of the disease, its stage of development, and the results of treatment. Being exclusively private patients, the writer has not felt at liberty to give their names, or even their initials; but they may, in nearly every instance, be recognized, and, if necessary, verified by the name of either the attending or of the consulting physician, which, as a rule, is given immediately after the number of the case. Some few of the cases have been under observation for several years; while others, and by far the larger number, were treated for a few months only. It is needless to state that the greatest care has been taken to make the report as correct as possible; and to secure this end, many cases were omitted, in which, although they presented general symptoms sufficiently marked to warrant their being classed as phthisis, the physical signs of that disease were either wanting or of a doubtful character. As this class usually represents cases in the initial stage, which are, of course, more amenable to treatment than those farther advanced, their omission materially reduces the number of successful cases, a fact which should not be forgotten in estimating the general result.

CASE I.—Male, 41 years, patient of Dr. Paddock, of Lenox, Mass. Disease began with bronchial catarrh in the winter of 1877. Patient visited Aiken for the first time in Jan., 1878, previous to which he had lost 14 lbs.—his weight, when he arrived in Aiken, being 122 lbs. He had also had occasional night-sweats. At that time there was dulness on the left side, extending from the clavicle to the fourth rib in front, and half down the scapula behind, the respiration being bronchial in character. Up to the 21st of March of that year, he had gained 4 pounds in weight, and his general appearance was much improved. The expectoration was greatly reduced in

quantity. He passed the summer at Lenox, attending to his business, which was that of a grocer.

Dec. 31, 1878.—Patient's weight is 126 lbs., color healthy, pulse 92, temperature 98½°; expectoration half an ounce, some of which sinks. On the left side the dulness extends from the clavicle to the third rib, showing a diminution in the extent of the infiltration since the first examination. On the back there is no change in the area of dulness. Expiration prolonged. Bronchophony. Patient neglected to take care of himself, ceased taking the remedies prescribed, and for a time lost ground.

April 21st.—Dulness in front unchanged, but behind it is reduced to a small space above the spine of the scapula. Respiration bronchial. General health much improved. A letter received a few weeks after his return home states that the improvement has continued.

CASE II.—A middle-aged male from Washington, D. C., a patient of Dr. S. C. Busey, of that place. This case, which has pursued a very chronic course, dates from boyhood; has always had more or less trouble with his respiratory apparatus. He consulted me for the first time in December, 1875. He then had an infiltration of the right lung, as evidenced by dulness between the scapula and vertebral column. The patient had just returned from Florida without having derived any benefit from his residence there.

Several years ago he contracted a croupous pneumonia, involving the affected lung; was for a time quite ill; but, after resolution had taken place, there was no change in the size or character of the chronic infiltration. He has been an annual visitor to Aiken for the past five or six years, and always derived much benefit from its climate; but this year (1879), being in Savannah, he concluded to give Eastman a trial. While there he had a succession of hemorrhages, which reduced him to such an extent, that Dr. Busey was summoned from Washington to him. Yielding to the urgent entreaties of the patient, Dr. B. had him conveyed in a special car to Aiken. He had one or two hemorrhages on the way, and, at the time of his arrival, was so prostrated, that he had to be brought on a bed from the cars to the hotel. His condition at that time was such as to cause his friends the greatest anxiety.

Jan. 19, 1879. Physical examination reveals dulness on the right side, extending over the supra-scapular and upper half of the infra-scapular region. Respiration bronchial, and at some points distinctly cavernous. On the left there is marked dulness behind, with prolonged expiration. He had but one hemorrhage after his arrival in Aiken, and from that time on, the course of the disease was one of very slow, but steady and uninterrupted improvement. For a long time he had to be rolled about in a chair, and many weeks elapsed before he entirely regained the use of his limb.

April 15th.—The patient is much improved, having gained in weight and strength. He can now walk about, and may be said to be as well as he has been during the past two years.

CASE III.—Male, 52 years of age, a patient of Dr. F. Donaldson, of Baltimore. Many years ago patient had rheumatism, with cardiac complication. Last July (1878), after taking a prolonged hip-bath for the relief of hemorrhoids, he had a severe chill followed by fever, which continued to recur until September, at which time he began to cough.

Jan. 24.—Pulse 112, temperature 102°. Over the left front there is diminished resonance from the clavicle to the fourth rib, with marked dulness under the

scapula of the same side. Breathing decidedly bronchial, with loud expiration. During the month of February was troubled with palpitations and pain in the cardiac region, and complained of great weakness and giddiness. No abnormal murmurs could be detected, but the edema of the limbs in connection with the above symptoms indicated the existence of some serious cardiac lesion. There was some improvement in the condition of the patient until March 4th, at which time there was an exacerbation of the disease, with increase of fever, sweats, etc. Physical examination revealed dulness on the right side with bronchial respiration. The cardiac symptoms also became more troublesome. April 15th, there being no prospect of improvement, the patient was advised to return home.

CASE IV.—A young lady from New Jersey; Dr. Hayes Agnew, of Philadelphia, consulting physician. The neck much disfigured with large cicatrices, the result of scrofulous ulceration of the cervical glands. Has lost flesh; lies on the left side.

Jan. 28.—Pulse 96, temperature $101\frac{1}{4}^{\circ}$; diminished resonance over the upper portion of the right lung, with jerking, bronchial respiration. Feb. 26th.—Pulse 104, temperature $101\frac{1}{4}^{\circ}$. Dulness distinct under right clavicle, with audible expiration anteriorly as well as posteriorly. On the left side there is no dulness, but the respiration is bronchial in character. The patient gradually grew worse, returned home at the close of the season, and died in August.

CASE V.—A middle-aged clergyman from Gloucester, Mass., a patient of Dr. Morrill Wyman, of Cambridge. Disease commenced with bronchial catarrh in April, 1878. Has had one slight hemorrhage.

Feb. 1, 1879.—The upper portion of the thorax on the right side is much depressed. There is an extensive area of dulness occupying nearly the whole front of the right lung. There is also dulness behind, but not so extensive as in front. March 7th.—Much improved, coughs less, but the expectoration continues profuse. Has a good color, and has gained eight pounds. March 13th.—Patient looks fresh and ruddy; pulse and temperature all but normal. Expectoration still profuse. April 9th.—Pulse 84, temperature, $98\frac{1}{2}^{\circ}$. Coughs much less, and the expectoration is reduced to a fourth of what it was a month ago. April 26th.—Pulse 84, temperature 99° . Has continued to improve; has gained four pounds since last examination. May 20th.—Had an attack of diarrhoea a week ago, which caused him to lose six pounds, three of which he subsequently regained. He now weighs nine pounds more than he did when he arrived in Aiken. There is diminished resonance, not amounting to positive dulness, extending from the clavicle to the third rib, over which region the respiration is normal, the expiration being barely audible. He coughs little, except in the morning, at which time he expectorates two or three drachms of mucopurulent matter.

CASE VI.—A bright little girl of six or seven years, Portsmouth, N. H., who, being under the care of a homoeopathic practitioner, consulted me only occasionally, so that her case history is more or less imperfect. The disease was the result of an attack of pertussis.

Nov. 6, 1878.—Pulse 120, temperature $99\frac{1}{4}^{\circ}$. The right lung is infiltrated from the apex to the fourth rib, as evidenced by distinct dulness both in front and behind.* This patient did remarkably well until Feb. 1st, when she had an attack of bronchial

catarrh. She recovered readily from this, and continued to improve until late in the spring, when she was lost sight of.

CASE VII.—A married lady, patient of Dr. McBurney, of New York. Disease started with bronchial catarrh in Feb., 1877. Lost flesh, at first quite slowly, but, diarrhoea supervening, the emaciation progressed very rapidly.

Feb. 10th.—Pulse 100, temperature $100\frac{1}{4}^{\circ}$, in afternoon as high as 104° . Expectorates several ounces; is very anæmic, and has had but little strength. Physical examination reveals extensive disease of the left lung, with softening of tissue. The advanced stage of the disease, the high temperature and great emaciation, precluded in this case all hope of improvement. She remained a few weeks in Aiken and then returned to New York.

CASE VIII.—A young lady, 24 years of age, from an adjoining county, in regard to whose case Dr. Hydrick, her medical attendant, kindly furnished the following history: "The patient came under my observation about one year ago. Her previous history is one of pulmonary disease of several years' duration; had hemorrhage in Oct. (1878). The family history is not good; her mother, sister and brother having fallen victims to pulmonary disease." The disease was ushered in with hemorrhage in the spring of 1877. Has had "asthma" since her childhood. After this attack she was ordered to Florida, but on reaching Charleston she consulted the late Prof. Geddings, who informed her that her native air was preferable. Under his treatment she improved, and remained in fair health until Oct. 1, 1878, when she had several hemorrhages and lost fifteen pounds.

Feb. 11th.—Patient is rather pale; pulse 110, temperature $100\frac{1}{4}^{\circ}$. Has night-sweats. On the right side there is dulness under the scapula, with feeble respiratory murmur and occasional bronchi. On the left the respiration is bronchial in character, with loud prolonged expiration. At the base of both lungs there are evidences of emphysema. March 15th.—Pulse 92, temperature $99\frac{1}{4}^{\circ}$. Patient looks much better. March 31st.—Patient returns home much improved, is stronger, has a better color, and coughs less. Has increased several pounds in weight. The dulness on the right side is of course still perceptible, but the mucous râles have entirely disappeared. On the left side, to the outer side of the heart, the respiration is still bronchial in character.

CASE IX.—Male; patient of Dr. Büchler, New York. Had an attack of hæmoptysis in 1860, with cough of several months' duration, from which he recovered completely, and remained perfectly well until August, 1878, when he again commenced to cough.

February 18, 1879.—Patient has lost five pounds since the attack in August, and looks quite pale and sallow. Pulse, 104; temperature, 99° . On the left side, and to the left of the heart, the percussion sound is short, and the expiratory murmur prolonged. Over the back the respiration on that side is very harsh. On the right side there is dulness over the apex, the respiration being quite feeble.

March 4th.—Color much improved; coughs less, and has gained one pound.

March 27th.—Has had slight attacks of congestion, with tingeing of the sputa, but now feels quite well.

April 23d.—Is stronger and expectorates less. The dulness, however, is much more distinct, extending on the right as low as the second rib.

April 29th.—Patient goes home improved in general health, but without any material change in the local symptoms.

* The symptoms afforded by auscultation were accidentally omitted.

CASE X.—A married lady, patient of Dr. George C. Webber, of Millbury, Mass., who writes that "she has incipient trouble in one lung," and "that she has lost three sisters by phthisis."

February 24th.—Color pale; pulse, 120; temperature, 98½°. On the right side there is dulness on percussion below the clavicle, with bronchial breathing over the upper portion of the lung. Left side dull under the clavicle.

March 20th.—Pulse, 104; temperature, 100½°. Has gained seven pounds in weight, and is greatly improved in color. Left apex still dull. On the right side the dulness is still present, but greatly diminished in extent.

April 8th.—Has continued to improve; has gained two pounds additional during the past month, making a total gain of nine and a half pounds since her arrival in Aiken.

May 2d.—Pulse, 104; temperature, 99½°. Coughs and expectorates much less; weighs more than she ever did in perfect health. The area of dulness is still present, but the respiration is all but normal.

CASE XI.—March 1st, a young man, eighteen years of age, a patient of Dr. F. Donaldson, of Baltimore. His father, two uncles, and an aunt had consumption. Has frequent attacks of hæmoptysis; has morning exacerbations of fever, and sweats at night. On the right side, the percussion sound is dull. The expiratory murmur is prolonged over the front and back. Vocal fremitus quite pronounced on that side. March 17th, no returns of the bleeding since the 8th; the morning paroxysms of fever have ceased to recur, the temperature never rising above 98½°; coughs only occasionally, then only after exerting the voice.

May 12th.—Goes home much improved; has had no return of the hemorrhages; has gained three pounds, and is much stronger.

CASE XII.—A young German, a patient of my own, who removed to Aiken in 1874, with an infiltration of the apex of the right lung. He had had several attacks of hæmoptysis, and presented all the symptoms of the first stages of phthisis. He improved rapidly, but, disregarding my advice, he accepted a situation in a store, where the confinement soon brought on a return of the old symptoms. He abandoned his position, and after drinking the blood of freshly slaughtered animals for several weeks he regained the ground he had lost. Remarking his rapid improvement while drinking fresh blood, he was advised to change his occupation and become a butcher; but instead of this he unfortunately opened a bar-room, where the irregular life, late hours, and constant exposure to cold draughts, favored the development of laryngeal phthisis, with extensive ulceration of the vocal cords. He grew gradually worse, and at the close of the last season was apparently very near his end. The chronic course of the disease (seven years), and the repeated arrest of the process, led to the belief that, had he exercised common prudence, his life might have been prolonged many years, and that there was in his case even a fair chance for a permanent arrest of the process.

CASE XIII.—This patient, a young lady from New Rochelle, was far advanced in phthisis when she arrived in Aiken; her appetite and digestion were very poor, and she was affected with chronic diarrhoea. Emaciation very marked; her complexion of that peculiar pale tint so often met in the advanced stages of consumption. The physical signs present were: extensive dulness over the right lung, with loud, moist râles on both sides, obscuring the other sounds. This patient held her own at Aiken, and subsequently went

to Florida, where she died a few weeks after her arrival.

CASE XIV.—A young girl of fifteen, from Adams, Mass.; Dr. C. W. Burton attending, and Dr. John T. Metcalfe consulting physicians. The disease was ushered in with a copious hemorrhage on March 10, 1878. The bleeding recurred several times, and was followed by fever, remittent in character and tertian in type. In May it was discovered that the right lung was extensively infiltrated. Profuse expectoration now set in and continued until August 1st, at which time she began to show some signs of improvement. This improvement continued until the cold weather of fall necessitated her remaining within doors. Growing somewhat worse, she was sent to Aiken.

December 11, 1878.—The patient, who has improved during the journey, is pale, with bright red spots on either cheek. Pulse, 98; temperature, 98½°. Weighs ninety pounds. Catamenia, which had just commenced, have not reappeared since the outbreak of the disease. Expansion of the thorax, which is limited almost exclusively to the left side, two inches. There is dulness over the whole of the right lung; respiration decidedly bronchial, with loud expiratory murmur. Moist râles audible over the whole of the right lung. On the left side the respiratory murmur is exaggerated.

January 9th.—Much improved in appearance; has gained two pounds. Expectoration reduced to half an ounce. A portion of the parasternal region is partially resonant.

February 10th.—Weighs ninety-eight pounds, a gain of eight pounds since her arrival in Aiken. Coughs in the morning and evening only.

March 13th.—Weighs ninety-nine and a half pounds, a total gain of nine and a half pounds. The area of resonance is increasing in extent; a triangular space, with two inches of the sternal and of the clavicle as a base, and the junction of the third rib and sternum as an apex, being quite clear.

April 14th.—Weighs 100½ pounds; making a total increase in weight of ten and a half pounds. The catamenia have returned. The clear triangular space above mentioned has grown larger, the apex being now at the junction of the fifth rib and sternum. She walks several miles without experiencing the least fatigue. The great and steady improvement in this case was as remarkable as it was unexpected; the large extent of diseased surface and the age of the patient having naturally led to the expectation that the result would be anything but favorable.

CASE XV.—A middle-aged mulatto, one of my own patients; first presented himself about eight years ago. He was having quite a profuse hemorrhage from the lungs. The attacks of hæmoptysis continued to recur at longer or shorter intervals. A physical examination afterwards revealed dulness and other signs of infiltration of the right lung. The patient, believing that his hemorrhages were due to malarial poisoning, made repeated applications for life insurance, but was invariably rejected. There has been no return of the bleeding since 1874; the cough has ceased, and the patient's general appearance is that of a person in good health. The only physical signs remaining at this date (June 1st) are slight dulness under the right clavicle and first rib, with some feebleness of the respiratory murmur. The patient's trade is that of a tailor, a fact worthy of note, in a case in which recovery has taken place; that occupation being justly regarded as decidedly conducive to the development of pulmonary phthisis.

So extensive is its prevalence in Vienna among that class of workmen, that it is sometimes designated as "the disease of the tailors."

CASE XVI.—A young man of twenty-three, from New York. Consulting physician, Dr. A. L. Loomis. Mother and brother died of consumption. Disease began in October, 1877, with "cold," followed by fever and emaciation; cough beginning a month later. Has had night-sweats and one slight hemorrhage. Loss of weight, twenty pounds. Color bad. Breathing rapid, with deficient expansion. Pulse, 106; temperature, 102°. Dull on the right side from clavicle to fourth rib, and over the greater portion of the scapular region. Respiration bronchial, with moist râles everywhere audible. On the left side, dullness with moist râles. This patient remained a few weeks at Aiken, and then went to Florida, where he afterwards died. During his residence at Aiken there was no material change in the patient's condition.

CASE XVII.—A young lady from Chicago; a patient of Dr. R. P. Lincoln, of New York. The disease in this case began with bronchial catarrh in the autumn of 1875. She came to Aiken for the first time in the winter of 1876-77, with an infiltration of the left lung, extending from the clavicle to the third rib. She improved during the winter, and passed the summer at Faribault, in Minnesota. She returned to Aiken the following winter, and did well, coughing only a little in the morning and evening. The pulse and temperature were normal, and her weight increased from 110 to 113 pounds. In March there was a slight exacerbation of the disease, as indicated by increase in the area of dullness, bronchial respiration, and pleuritic pains on the affected side. This attack was of short duration, and she went North in the spring in good condition. She passed a portion of the summer at Bethlehem, N. H., and then went to Amherst, Mass., where she was laid up with an attack of pelvic cellulitis. This complication, together with the want of proper food, reduced her considerably, and caused her to lose much of the ground she had previously gained. As soon as able to travel she was brought to Aiken.

Dec. 14, 1878.—Notwithstanding the deprivation of her accustomed exercise, her physician having ordered her to maintain the recumbent posture, patient has passed much of her time sitting or lying on the veranda, and there has been a rapid improvement in all her symptoms since her return to Aiken. Pulse, 88; temperature, 99½°. Expansion, 2". Expectorates one ounce. The extension of the area of dullness noticed last March is now quite distinct, but that corresponding with the older infiltration has become more resonant. The respiration is bronchial, with prolonged hissing expiration. A few moist râles indistinctly audible under the left scapula.

Jan. 22, 1879.—General appearance good. Lung symptoms much improved.

May 1, 1879.—Much improved. Pulse, 80; temperature, 97¼°. Weighs at least 120 pounds, which is above her normal weight. Coughs a little in the morning, raising a few teaspoonfuls of muco-purulent matter. Left side dull from the clavicle to the third rib, but much more resonant than at last examination. Has contracted a slight attack of acute bronchial catarrh, which gives rise to a loud persistent roushus, which masks the other symptoms elicited by auscultation. In this case, which has been three years under observation, the disease was arrested at least twice, and there was every reason to hope that the good results would have been of a more perma-

nent character, had it not been for the unfortunate complication which for a whole winter deprived her of all exercise in the open air.

CASE XVIII.—A man of thirty-one, a patient of Dr. Santoir, of Brooklyn. Disease began with an attack of pneumonia in July, 1878. Patient's general appearance indicates that he is in the last stages of phthisis; emaciation very great; has lost over thirty pounds; cannot digest food, and vomits continually. Patient grew rapidly weaker, and was removed to Beaufort, S. C., and then to his home in Brooklyn, where he died.

CASE XIX.—Male, twenty-two years; patient of Dr. Chapman, of New Haven. Was taken sick on the 4th of March, with bronchial catarrh. He was at first treated by an irregular practitioner, and lost flesh rapidly. After placing himself under Dr. Chapman's care, there was a marked improvement in all his symptoms.

Dec. 28th.—Color unhealthy; pulse, 120; temperature, 100½°. Weight, 117½ pounds. Expectorates quite a large amount of muco-purulent matter, some of which sinks. Patient has had night-sweats, as well as occasional attacks of hæmoptysis. On the left side there is an area of dullness occupying the whole upper half of the lung, front and back, with bronchial breathing and loud prolonged expiration; crackling mucous râles audible over the whole lung. On the right side no dullness, but prolonged expiratory murmur.

Jan. 1, 1879.—Looks and feels better. Pulse, 108; temperature, 100½°. Expectorates less.

Jan. 28th.—The dullness now extends from clavicle to fourth rib and half down the scapula. Weighs 118½ pounds. A gain of three-quarter pound.

Feb. 8th.—Weighs 119½ pounds; a gain of two pounds.

March 23d.—Pulse, 92; temperature, 100°. Weighs more than he has ever done in health.

March 28th.—Cough tighter; is quite hoarse, and has diarrhoea. Pulse, 112; temperature, 101°.

April 10th.—Pulse, 100; temperature, 100°. Has rallied from the late attack, and looks quite ruddy.

April 18th.—Pulse, 92; temperature, 99½°. Weight, 117 pounds; a loss of two and a half pounds.

May 10th.—Pulse, 88; temperature, 99½°. Has had a slight, but persistent, diarrhoea since May 5th.

May 17th.—Pulse, 104; temperature, 100½°. Complaints of pain in the left lung, extending through to the back, probably indicative of extension of the disease. Patient has lost four pounds.

May 21st.—Appears to be losing ground; starts for home.

In this case there was marked improvement in all the symptoms, increase in weight, lowering of temperature, lessening of cough and expectoration, until the warm weather of spring caused the attack of diarrhoea, with subsequent extension of the disease and loss of all he had previously gained.

CASE XX.—A middle-aged lady from Norwich, Conn. Had a severe attack of the epidemic influenza, which prevailed so extensively in 1874; has coughed ever since, and in October, 1877, had a copious hemorrhage, followed by loss of flesh, night sweats, etc.

Jan. 4th.—Pulse, 120; temperature, 101°; expansion, 28¼" to 30". Suffers in the forenoon with chilly sensations, succeeded by fever. Sweats profusely, and expectorates at least four ounces of muco-purulent matter, all of which is said to float. There is extensive dullness on the right side, extending in front from the clavicle to the fifth rib, and behind, from the supra-spinous fossa to a line corresponding

with the lower third of the scapula. The respiration on that side is bronchial, with abundant mucous râles. On the left side no dullness, but very harsh respiration. The general appearance of the patient is decidedly unfavorable; she is quite weak, and slight exertion produces fatigue.

Jan. 14th.—Pulse, 112; temperature, 98½°. The sweats have ceased, and patient feels stronger.

March 29th.—The condition of the patient during the last two months has remained unchanged; to-day, however, she is much paler, and evidently weaker.

April 14th.—Pulse, 120; temperature, 102¼°. Patient is losing ground.

April 30th.—She leaves for home, her residence at Aiken having prolonged life through the winter, the advanced stage of the disease not admitting of any more favorable result.

CASE XXI.—This patient, a young man from Brooklyn, who had been hitherto attended by an irregular practitioner, was far advanced in consumption; left lung, as well as the larynx, being extensively diseased. Emaciated to the last degree with oedematous swelling of the ankles, it was evident that death would take place at an early date—a prognosis that was verified a few weeks later.

CASE XXII.—An unmarried lady, a patient of Dr. F. I. Knight, of Boston. The disease began with chronic pleuro-pneumonia in December, 1876. On her way South she was exposed to the influence of severe cold in the depot at Philadelphia, which gave rise to severe pain in the chest and a dry, troublesome cough.

March 2d.—Pulse, 112; temperature, 101¼°; color, pale. Articulates with great difficulty, being compelled most of the time to speak in a low whisper. Slight dullness under the right scapula, with bronchial respiration.

March 10.—The aphonia has increased; has fever in the afternoon.

March 20.—Pleuritic pains; has less fever, but complains of weariness after slight exertion, and has night-sweats.

April 5th.—General health much improved; laryngeal symptoms as at last examination.

April 28th.—The improvement noted on the 5th has continued; she is stronger, and has increased in weight. No improvement in the laryngeal symptoms, except that the voice is more distinct.

CASE XXIII.—Male, forty-one years old; patient of Dr. Van Bibber, of Baltimore. Hereditary predisposition to consumption on the father's side. Disease began with bronchial catarrh in the autumn of 1877. Has had several attacks of blood-spitting, and suffers with occasional night-sweats. The patient has been some time in Aiken, and is in much better condition than when he arrived, having gained at least five pounds.

March 4th.—Color, good; pulse, 76; temperature, 100°. Dull on left side, between the clavicle and second rib, with bronchial breathing. There are also the same evidences of disease between the scapula and vertebral column of that side.

April 4th.—The patient has continued to improve, having gained three additional pounds during the past month, making a total increase of eight pounds since his arrival in Aiken. There has been no return of the bleeding.

CASE XXIV.—Male, æt. 42; Albany. Has been under the care of a homœopathic practitioner. The lung affection commenced in July, 1870, with an attack of bronchial catarrh followed by hemorrhage

and occasional night-sweats. Passed the winter of 1871 and 1872 at Nassau, and improved there. Stayed at home the following winter, losing ground with the approach of the warm weather of spring, but remaining tolerably well until 1874, from which time until 1876 he passed the winters at home, but came South in the spring. Went to Colorado in 1877, and grew better. Came East in October, and remained in New York until February.

March 5th.—Color, tolerably good; pulse, 96; temperature, 99½°. Expectorates four ounces of mucopurulent matter in twenty-four hours. Dull on the right side, from the clavicle to the lower border of the fourth rib, with loud amphoric respiration, and other signs of a large superficial cavity. Under right scapula bronchial respiration, with loud, prolonged expiration. On the left side there is no dullness, but the respiration is decidedly bronchial.

March 28th.—Much better; pulse, 84; temperature, 99°. Has gained two pounds.

April 5th.—Goes North much improved in appearance.

CASE XXV.—A young man of 22, a patient of Dr. Calvin Ellis, of Boston. One brother had consumption, but recovered. The disease began with bronchial catarrh in June, 1878. Has had occasional night-sweats and hemorrhages. He came to Aiken in December, but, disappointed because his cough did not disappear as rapidly as he had hoped, he went to Florida. During a hunting expedition in that State he was much exposed, and subjected to great fatigue, which, in connection with insufficient food, and that of bad quality, brought on fever. Growing rapidly worse, he determined, after a short stay on the St. John's, to return to Aiken. It was evident from the fever, the obstinately recurring hemorrhages, and increasing emaciation, that the disease had taken a fresh start. Prior to this date the affection was said to be confined to a limited area in the left lung. He has lost twenty-five pounds.

March 20th.—Over the left apex the percussion sound is short, with very harsh respiration; the expiration being prolonged. On the right side there is a small area of dullness below the clavicle, with prolonged expiratory murmur.

April 23d.—The patient's general symptoms have undergone no material change. The dullness on the right side is now very distinct, extending as low as the third rib.

May 6th.—Patient goes home much worse in every respect. Much of the trouble in this case may be attributed, not so much to his ill-advised removal to Florida, as to his reckless and injudicious mode of life after his arrival there.

CASE XXVI.—A married lady; Drs. Loomis and Nicol, consulting physicians. No history noted.

April 4th.—On the right side there is an area of dullness under the second and third ribs, near the sternum, with bronchial respiration. On the back, same side, there is also dullness under the upper third of the scapula, with increased vocal fremitus. In other respects the respiration presents the same character as in front. Patient complains of circumscribed pleuritic pain over a region corresponding with the area of dullness.

May 3d.—The patient looks quite well; has gained three pounds in weight, and coughs but little. The dullness has disappeared, and the respiratory murmur has lost its bronchial character, being feeble without any prolongation of the expiration.

CASE XXVII.—A married lady from Memphis; Drs. Thornton and Maury. The disease commenced with

an attack of hemoptysis in May, 1877. Has lost eighteen pounds. During the journey the patient was so extremely weak that she had to be carried from one car to another, and even now she is unable to walk across the room without assistance. She was sent to Aiken as a *dernier-ressort*, her friends having regarded her condition as hopeless, and it was feared that she would die on the way. Has had frequent hemorrhages, and the night-sweats have been quite profuse. She had been some weeks in Aiken, and had already gained several pounds.

April 13th.—Very pale, emaciated, with quick and feeble pulse. There is distinct dullness over the upper portion of the left lung.

(The symptoms afforded by auscultation were not noted, but the general appearance of the patient, the dullness on percussion, and the history of the case, are such as to admit of no doubt as to the nature of the disease.)

May 25th.—Patient has had several slight hemorrhages, and has suffered with occasional attacks of pleuritic pain. In other respects her condition is greatly improved.

June 3d.—Has gained six pounds in weight, looks better, and is much stronger, being now able to walk about without assistance. The improvement in this case was as great as it was unexpected.

CASE XXVIII.—A young girl of fifteen, from Cincinnati; Drs. Carson and Richards. Disease commenced with cough on March 7th. Pulse, 96; temperature, 101°.

April 17th.—Left side dull in front, from the clavicle to second or third rib; respiration feeble and indistinct in character. On the right side the respiration is louder, with audible expiratory murmur.

April 24th.—Improving; coughs very little, and then only in the morning.

June 8th.—Pulse, 88; temperature, 98½°. Cough has disappeared entirely, and the patient presents all the appearances of a person in perfect health. Notwithstanding her having several sharp attacks of diarrhoea, her weight has increased from 135 to 145½ pounds.

CASE XXIX.—Male, forty years, from Worcester, Mass.; patient of Dr. Calvin Ellis, of Boston, and Dr. Thomas Gage, of Worcester. Began with bronchial catarrh in January, 1879. Has gained three pounds since his arrival in Aiken, thirteen days ago.

April 22d.—Color good; if anything, rather too florid. Expectoration one ounce of muco-purulent matter; pulse, 108; temperature, 101½°. Dull on the right side, from the clavicle to the second rib in front, and as low as the angle of the scapula behind.

April 30th.—Continues to improve; coughs less, and the expectoration is somewhat reduced in quantity.

May 18th.—Patient does not look so well, and there are indications that the disease is extending.

May 22d.—Color bad; is evidently losing ground very rapidly. Area of dullness extends in front to the lower border of the third rib. Patient much worse than when he arrived.

CASE XXX.—A young German from New York, twenty-five years of age. The disease began with bronchial catarrh in 1875, followed by several slight hemorrhages. Spent the summer on Schooley's Mountain, N. J., where he lost his cough and returned to New York, to all appearances quite well. There, by the advice of his physician, an eminent specialist in pulmonary affections, he resumed his business, but was soon again compelled to relinquish it on account of a return of the old symptoms. He was then sent to the

Adirondack region, where he again improved; but finding himself ill on his return to New York, he started for Europe, where he was treated successively at Falkenstein (Dr. Detweiler), at Davos, and at Meran (Dr. Pircher). The patient has passed the whole winter at Aiken, but has done so well that he has not required medical advice. His only object in consulting me is to ascertain to what extent he has improved.

May 13th.—Pulse, 88; temperature, 99¼°. Looks well, and has a good healthy color. Has increased in weight. At all the other resorts he has frequented, the sputa have been more or less tinged with blood; but since his arrival in Aiken there has been no trace of bleeding. He expands the chest to the extent of three inches without any great effort. Dullness quite pronounced under and below the right clavicle; in the axillary line the percussion sound is short. On the back of the same side there is also dullness under the supra-spinous fossa of the scapula. Auscultation reveals bronchial respiration over the left apex, with prolonged expiration in the axillary region. Mucous râles, formerly observed by Dr. Pircher under the upper portion of the scapula, have all disappeared.

CASE XXXI.—A young married lady, patient of Dr. L. Weber, of New York. Disease began in March, 1878. The following letter from her physician will serve as a history of this interesting case:

"Mrs. —, from healthy family, had several slight attacks of bronchial hæmoptæ about ten months ago, during pregnancy. These attacks recurred from time to time, although rarely combined with fever. When I examined her some six months ago, I said to her attending physician that I found on the left side posteriorly unmistakable signs of catarrhal pneumonia of the chronic variety, with tendency to cirrhotic disease of the lung-tissue.

Yours respectfully,
L. WEBER."

136 WEST THIRTY-FOURTH ST.

Jan. 15, 1879.—Patient has lost flesh, her present weight being 121 pounds. In addition to the symptoms mentioned by Dr. W., she complains of occasional attacks of dyspnoea. There is a slight dullness under and to the left angle of the scapula (auscultatory symptoms not noted). Patient has felt much better since she came to Aiken, and the hemorrhages which were previously quite frequent, have only recurred three times since her arrival.

Jan. 19th.—Pulse and temperature normal; no return of the bleeding. The attacks of dyspnoea are much less frequent.

Feb. 10th.—Pulse, 80; temperature, 98½°. The cough, which has been gradually lessening, has now ceased entirely.

April 24th.—Pulse and temperature normal. No return of the cough or of the hemorrhages. Has gained fifteen pounds, and is, to all appearances, perfectly well. Physical examination reveals nothing abnormal, except harsh respiration on the left side.

It will be seen by the table (p. 466), that nineteen out of the thirty-one cases were more or less improved; that in four of these there was entire cessation of cough, the patients being to all appearances quite well when they left Aiken. In five cases the patient neither gained nor lost, or gain in one direction was counterbalanced by loss in another. Of the eight classed as having grown worse, several had gained in weight and showed other signs of improvement; but, owing to carelessness or ignorance, relapsed. The one case that died was evidently in the very last stage of the disease when he

presented himself for treatment. The results are submitted without further comment to the profession at large; and although chiefly intended for their information, it is hoped that other physicians in charge of the various sanatoria throughout the country may be induced to preserve careful records during the coming season, and conscientiously present for publication the results attained at their stations. It is hoped that those who may be inclined to act on this suggestion, will, if possible, adhere to the plan presented in this paper, and thus enhance the value of their reports when compared with others. It should be remembered that the above report does not include all the cases of consumption that occurred in the writer's practice, but only those which were under observation for periods longer than one month. Quite a large number presented themselves only occasionally, and, not being under continuous treatment, were omitted. A fact worthy of note, and one to which the reader's attention is most earnestly directed, is, that patients wintering at Aiken, as a rule, did better than those which did not arrive until after the warm weather of spring had begun. Another point in the report which should be noted is, that those cases which failed to improve at Aiken were in no way benefited by removal to other resorts.

TABULAR STATEMENT OF CASES OF PHTHISIS TREATED AT AIKEN, SOUTH CAROLINA, DURING THE WINTER OF 1878-79.

Case No.	Lung affected.	Term of residence in Aiken.	Result.	Increase in weight.
I.....	Left.	4 months.	Improved.	Not noted.
II.....	Both.	5 seasons.	Improved.	"
III.....	Both, with cardiac complication.	3 months.	Grew worse.	0
IV.....	Right.	4 months.	Grew worse.	0
V.....	Right.	4 months.	Improved.	9 lbs.
VI.....	Right.	7 months.	Improved.	Not noted.
VII.....	Left.	1 month.	Grew worse.	0
VIII.....	Both.	2 months.	Improved.	Not noted.
IX.....	Both.	3 months.	Unchanged.	"
X.....	Both.	4 months.	Improved.	9½ lbs.
XI.....	Right.	3 months.	Arrest.	3 lbs.
XII.....	Right, with laryngeal complication.	6 years.	Arrest with subsequent relapse.	Not noted.
XIII.....	Right.	6 weeks.	Unchanged.	"
XIV.....	Right.	6 months.	Improved.	10½ lbs.
XV.....	Right.	8 years.	Arrest.	Not noted.
XVI.....	Both.	1 month.	Unchanged.	"
XVII.....	Left.	3 seasons.	Improved.	"
XVIII.....	Both.	1 month.	Grew worse.	0
XIX.....	Left.	6 months.	Unchanged.	Not noted.
XX.....	Right.	4 months.	Grew worse.	"
XXI.....	Left, with laryngeal complication.	3 months.	Died.	0
XXII.....	Right.	2 months.	Unchanged.	Not noted.
XXIII.....	Right.	3 months.	Improved.	8 lbs.
XXIV.....	Left.	2 months.	Improved.	2 lbs.
XXV.....	Both.	6 weeks.	Grew worse.	0
XXVI.....	Right.	1 month.	Improved.	3 lbs.
XXVII.....	Left.	2 months.	Improved.	6 lbs.
XXVIII.....	Left.	2 months.	Arrest.	10½ lbs.
XXIX.....	Right.	1 month.	Grew worse.	0
XXX.....	Right.	4 months.	Improved.	Not noted.
XXXI.....	Left.	3 months.	Arrest.	15 lbs.

SUMMARY.

Arrested.....	4
Improved.....	13
Unchanged.....	5
Grew worse.....	8
Died.....	1
	31

A PLEASANT REMEDY FOR TOOTHACHE.—This is found, according to Dr. T. C. Osborn, in the *Medical and Surgical Brief*, in the compound tincture of benzoin. A pledget of lint saturated with the drug and applied to the decayed tooth relieves the pain at once.

Reports of Hospitals.

THE TREATMENT OF TYPHOID FEVER IN THE PHILADELPHIA HOSPITALS.

(Prepared for THE MEDICAL RECORD.)

THE HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

THE remedies which have been found at the University Hospital to exert the most powerful influence upon the follicular intestinal catarrh, always present in this disease, are first and foremost the nitrate of silver, and next the subnitrate of bismuth and carbolic acid. There would seem to be abundant evidence that nitrate of silver reduces the size of the enlarged follicles, relieves the inflammatory engorgement, and allays the hyperæsthesia of the nerve. It has also been settled by numerous experiments that the nitrate of silver is the most easily administered of the three astringents above mentioned, and the best tolerated by the system. If there is any putrid element in the disease, carbolic acid is employed instead of the nitrate of silver. The nitrate of silver is administered in doses of one-fourth of a grain four times a day. This treatment is persevered in until the ulcers have entirely healed.

If the discharge from the bowels is composed of small, semi-solid stools, it is, with propriety, disregarded; but if the stools are watery and large, opium is administered in pill-form, combined with the nitrate of silver. From one-quarter to one grain of the powdered opium is given three times a day. If there is constipation instead of diarrhoea, belladonna is given conjointly with the nitrate of silver.

Great care is had with regard to the diet when the catarrhal inflammation of the intestines is present. The food employed is, of course, as digestible as possible. Milk has been found to be the best diet in this disease. If the curd appears in the stools, the milk is diluted with water, or lime-water. Of this mixture of milk and lime-water three ounces are given every two hours, or a little over two pints in the course of the twenty-four hours. When the bowels are torpid, beef or mutton broth is given alternately with the milk.

The beef-tea employed is prepared after the following recipe: Take a quantity of tender meat, and, after cutting off the fat, chop it up fine, put it in a bowl, pour a pint of water over it, and let it stand over night. The water should be kept just on a simmer—the temperature never being allowed to go above 140°, otherwise all the albumen is coagulated, and so either left on the sieve in straining, or introduced into the stomach in the form of curds. After this simmering solution has been allowed to stand over night, pour it into a pipkin, and heat it again gently with enough salt to give it flavor, and, if necessary, add a drop or two of muriatic acid. Then pour it out over a hair-sieve into a jar. The resulting solution will be found to contain all the nutriment possible, and to be the most valuable kind of stimulant and laxative.

When the fever is high, the patient is given all the food he can take. Care is had, however, that, in allowing food, the already inflamed intestinal tract is not further irritated.

The poison in the blood is controlled by means of quinia, and nitro-muriatic or salicylic acid. As a general thing, salicylic acid is only employed where there is some putrid discharge joined with high

fever. Quinia is considered (1) to neutralize the effects of the septic poison in the blood, (2) to act as a good tonic to the muscular and nervous systems, (3) to tend to check febrile action, and (4) to remove any malarial element that happens to be present. Quinia is never given in the enormous doses advised by the German physicians. It has been found that such doses will break down high fever, but they produce entirely unnecessary irritation of the gastric mucous membrane. About twelve grains of quinia are given in the course of the twenty-four hours.

The temperature is kept down by preventive measures rather than by the cold bath, which is regarded as a last resort. It is unnecessary after this to say that the practice of the University Hospital is wholly opposed to the indiscriminate cold bathing in typhoid fever, so much in vogue in Germany within a year past.

When the temperature runs up in spite of drugs,—in the milder cases, spongings of the whole body are practised every two hours, the sponges being squeezed out of a mixture of water and bay rum at a temperature of from 60° to 80°. If this does not succeed (it rarely fails), and if the patient's temperature mounts up to 104° or 105°, he is then wrapped up in sheets wrung out of cold water. If the temperature still runs up to such an extent that life is threatened, the patient is placed in a cool bath until the bodily temperature is sufficiently reduced.

Before the local lesions appear, the fever can be more boldly attacked; but when, in subsequent stages, it runs high, it is regarded as partaking of the nature of a sympathetic fever, largely dependent upon the amount of intestinal lesion, and the use of baths at this period is thought to be attended with great risk. If the cold bath is used at all (except as a last resort, and when temperature cannot be reduced in any other way), it is employed during the first ten days in cases where the temperature rises above 103° and cannot be controlled by frequent spongings, large doses of quinia, diaphoretics, etc.

With regard to the use of stimulants, the hospital practice is not in favor of administering them simply because a patient has the fever. It is believed that stimulants are only demanded for the relief of certain symptoms. As a general thing, they are not given to children before the age of puberty. They are only administered to old persons, and to meet certain indications, viz., (1) ataxic nervous disturbances, such as sleeplessness, twitchings of the muscles, maniacal delirium; (2) circulatory disturbances, such as feeble and rapid pulse, and feeble development of the first sound of the heart; (3) profound asthenia, as shown by great tremulousness, inability to make any movement, and tendency to slide down off the pillow; (4) dry and brown tongue, with sordes on lips, teeth, and tongue.

The milder forms of stimulants are always used at first. The one most frequently employed is wine-*whewy*. This is made in the proportion of one part of sherry to three of milk, and as much as a gill or half a pint of it is given in the course of three hours. If the symptoms increase, stronger stimulants are used, such as whiskey. Whiskey is usually given in lime-water and milk; the lime-water prevents the coagulation of the milk by the alcohol. These ingredients are mixed in the proportion of one tablespoonful each of whiskey and lime-water to every three ounces of milk. In this form half an ounce of whiskey is given every hour. If the stimulation is doing good, a diminution of the serious symptoms is noted. If the symptoms increase, on the other hand, the amount of stimulus is reduced.

With regard to complications: relapses are always regarded as true second attacks of the disease, and are treated accordingly. The treatment is resumed, the diet restricted, and the same general watchfulness had over the state of the case as during the course of the first attack.

Hemorrhage occurring early in the attack is considered as of but little consequence, but when it supervenes later—when the sloughs are thrown off—it is regarded as a very serious matter. The treatment of hemorrhage is by absolute rest in bed for twenty-four hours, and by the administration of opium, to produce complete quiet for the alimentary canal. The opium is given by the rectum, one grain of the solid opium being prescribed every two or three hours until the patient is gently under its influence; of astringents, for local action, acetate of lead is preferred. A suppository containing one grain of opium and three grains of the acetate of lead is given three or four times daily. Ergot, by reason of its action upon the walls of the arterioles, is also very highly prized. It is given hypodermically near the supposed seat of the hemorrhage. The food allowed is very small in quantity, and absolutely liquid.

Peritonitis is treated by antiphlogistics, sedatives, perfect rest in bed, and a diet which leaves no residuum to irritate the bowels.

True perforation is regarded as beyond the reach of medical skill to mend.

THE GERMAN HOSPITAL.

The quinine treatment (heroic doses) has been given a fair trial in the wards, and has been found to do but very little, if any, good. It has not even been satisfactorily demonstrated that it reduces the temperature, as the same changes in temperature have taken place in the case of those who have been taking the mineral acids alone. Indeed, after giving quinia some time in some cases it was stopped, and the same changes were found to exist. Quinia has seemed rather to increase the diarrhoea and headache, and in two cases it produced entire deafness for two weeks. Sponging with vinegar and water has been found to act beneficially. Plenty of ice is given the patient to suck, and the ice-cap is applied to the head. The wet pack has been found to lower the temperature for the time being, but in an hour or more it generally mounts up again. To this is added the consideration that it has the disadvantage of necessitating the constant moving of the patient, wearing and weakening the constitution, thereby destroying his or her main support against the disease.

Oil of turpentine, as recommended formerly by Dr. George B. Wood, has been proven to act most beneficially. Especially has it been found useful in those cases where the dry, dark, and heavily coated tongue exists, with abdominal symptoms. It is given in twenty-drop doses in mucilage, every hour or two, and is continued in smaller doses during convalescence. In a large number of cases in which dry, dark tongue existed with tympanites, turpentine acted most beneficially, the tongue regaining its normal color and becoming moist in from six to eight days, and the tympanites disappearing in a much shorter time.

The mineral acids are of great service in keeping the stomach in good order, stimulating the appetite and relieving the intense thirst. In many cases the patients call for their dose of the acid hours before the time, so much are they pleased with its taste and effects. The acid commonly used is the dilute nitro-muriatic acid.

Whenever active, wild delirium exists, from one-third to one-half of a grain of morphia is given hypodermically. This medication has been found to act promptly in almost every instance. In one case particularly, the patient towards evening showing signs of approaching delirium, a large dose of morphia was immediately given hypodermically, which had the effect of rendering the patient perfectly rational when he awoke. Upon another occasion, when this same patient again showed signs of approaching delirium, the morphia was omitted, upon which a wild attack of delirium came on, which was at once broken up by the use of a moderate dose of morphia hypodermically.

THE EPISCOPAL HOSPITAL.

The temperature is reduced and the heart strengthened by fifteen-drop doses of the tincture of digitalis and two grains of quinia, every three hours. Stimulants are only employed in the severer cases. Excessive diarrhoea is controlled by injections containing fifteen drops of laudanum and half a fluid ounce of starch. Dilute muriatic acid is given in fifteen-drop doses every three hours, and in the second week of the disease five drops of turpentine are administered every three hours. Hemorrhage from the bowels is controlled by the internal use of ergot, and the local application of ice to the abdomen. A number of cases have been treated of late with one-fourth grain doses of the nitrate of silver in the second week of the disease, this dose being repeated every three hours with entirely negative results.

THE PENNSYLVANIA HOSPITAL.

Ten grains of quinia are given daily, and ten drops of muriatic acid every three hours. The patient is sponged all over with cold water, in the mornings and evenings. Diarrhoea is controlled by opiates and astringents. This is the routine treatment. The diet is very carefully regulated, consisting principally of beef-tea and milk. When the first sound of the heart is altered (weakened) early in the course of the disease, it is regarded as an indication that the patient should immediately be put upon the use of stimulants; or, if he is already taking whiskey, that the daily amount should be doubled.

Progress of Medical Science.

NEUROTOMY OF THE SUPERIOR MAXILLARY NERVE.

In a very interesting paper on this subject published in the *New York Medical Journal*, June, 1879, Dr. F. S. Dennis gives a short *résumé* of the history of neurotomy, and a collection of twenty-one cases of excision of the superior maxillary branch of the trigeminus as far as the foramen rotundum, Meckel's ganglion being extirpated, in a certain number of cases, at the same time. Although too limited to furnish broad and comprehensive deductions, Dr. Dennis believes that these cases will justify the following practical conclusions:

1. The high operation upon the superior maxillary nerve for the cure of neuralgia characterized by pain, having its maximum intensity at the infra-orbital foramen, in the course of the malar branch, and sometimes, although rarely, in the alveolar dental, superior labial, and palatine points, is a better operation than the lower one, inasmuch as these cases show

that the former, as a secondary measure, has cured, or brought relief, in nearly every case in which the latter has failed to do so.

2. The operation is justifiable, as the record shows no case in which death has occurred as an effect of the operation, nor one in which the symptoms have been aggravated.

3. Relief, if only temporary, is a result which justifies the high operation for neuralgia as much as it does the one for the removal of malignant tumors.

4. Want of success is due to failure as regards a correct diagnosis, not only of the cause of the pain, but also of the site of the disease, whether central or peripheral.

5. If the lesion is situated in the terminal nerve plexuses, polyneurotomy, or the resection of several nerves may become necessary. Mononeurotomy should be reserved for those cases in which the irritant involves the trunk of a nerve near its origin.

6. The principal indication for the employment of this bold but safe operation is found in the obstinate persistence of pain, notwithstanding the trial of all milder measures. The prognosis will be most favorable where lesions involving the plexuses or the nerve centres can be excluded.

It is a significant fact that out of the twenty-one cases that have been collected from all the literature on this subject, more than half have been performed by American surgeons.

EVIDENCE OF STILL-BIRTH.—In an article on this subject Dr. S. W. Abbott suggests the probable value of further observations on the relative volumes of the lungs and body as determined by displacement of water. An absolute standard can scarcely be established, but there may be a relative standard which careful observations will demonstrate. The color of a lung which has not respired is brownish-red, resembling that of adult liver. After respiration, Casper describes the existence of bright red circumscribed patches on a dark bluish-red ground color, and he states that the presence of this insular marbling excludes the idea of a fetal condition, and entitles us to assume as certain the fact of the child having lived after its birth. Pulmonary hyperæmia and artificial inflation may modify the color of the lungs of the new-born. Crepitation only appears after respiration. According to the Prussian criminal code, the position of the diaphragm is to be carefully noted; when this does not rise higher than the fifth intercostal space, the child has breathed; when no respiration has taken place it rises as high as the fourth intercostal space. Air does not enter the middle ear in less than twelve hours after birth. According to Casper the presence in the lower epiphysis of the femur of an osseous nucleus of three Rhemish lines (about six millimetres) in diameter, permits the deduction that the child has lived after its birth, but the converse of the rule does not hold good.—*The Boston Medical and Surgical Journal*, August 28, 1879.

CHANGES IN THE MEDICAL FACULTY OF YALE COLLEGE.—At a meeting of the Yale corporation on October 22d, Dr. William H. Carmalt, for several years a lecturer in the Medical School, was appointed a full Professor of Ophthalmology and Otology. Dr. Francis Bacon was invited to resume duty as Professor of Surgery, and the following lecturers were appointed: Dr. W. O. Ayres, of New Haven, on Diseases of the Nervous System; Dr. S. H. Chapin, of this city, on Diseases of the Throat, and Dr. Matthew D. Mann, of Hartford, Clinical Lecturer on Gynecology.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 15, 1879.

LEGAL LIABILITIES OF HOSPITALS AND OF MEDICAL MEN.

A RECENT decision by the Supreme Court of Rhode Island will have considerable interest to the medical profession, and especially to those members of it who are connected with charity hospitals. It appears that a man in Providence, R. I., while working in a lumber-yard, had two of his fingers cut off by a circular saw. He was taken to the Rhode Island Hospital, and there put under the care of the interne. Ether was administered, and attempts were made to stop the bleeding. This could only be done, however, by the application of the tourniquet, and that instrument was kept on for seventeen hours. The result was, that eventually the arm had to be amputated at the shoulder-joint. When the patient recovered he sued the hospital for damages on account of unskilful treatment, and because the interne did not summon the visiting surgeon in accordance with the hospital rules.

In the court the judge directed the jury to give a verdict for the defendant, on the ground that an institution supported as this was, by public charity, should not be made liable for negligence or unskilful treatment. The knowledge that there was such a liability might deter the benevolent from giving money to such institutions. The case was appealed, however, and this judgment reversed.

In his decision the judge stated that hospital corporations should be considered liable for failure to exercise reasonable care in selecting skilful, competent men as internes, and that they were also liable for negligence on the part of the internes in carrying out the proper rules of the institutions, such as sending for the visiting surgeon in cases of emergency.

This decision is stated by the *Sun* to be justified by legal authorities, although contrary to the decisions of some other courts in like cases.

Looking at the matter from the medical stand-

point, it appears to us that, on the whole, this recent decision will be endorsed by the profession as a just and salutary one. There can be no doubt that instances of carelessness and negligence on the part of hospital internes are not very infrequent, although as a rule these young men perform their duties with great faithfulness. The fact that the hospital corporation is responsible for their acts will tend to make it more particular in its selections, and to lessen the weight of personal and political influence, which has so great a share in the appointments.

In suits against doctors personally, however, we have always advocated the greatest lenity on the part of the court. It is usually very difficult for the non-professional mind to appreciate the complexities that may surround even a simple case, and the fact is notorious that it is an immense injury to a physician to be sued for malpractice, even if he gets a verdict in his favor. It should be well understood that courts of law will not often grant damages in such cases. This is but justice to the doctor who, if a genuine one, will never allow any injury or inattention to ensue from such a state of affairs. Let the corporations be watched, but the doctor have a little balance in his favor. He has a hard enough time apart from courts of law.

INSTRUMENTS OF PRECISION.

THE ingenuity of medical men has been displaying an unwonted activity of late, and new methods and appliances for the examination of the human body are being continually announced. Instruments of precision just now are in the ascendant; and never before have anatomical structures or physiological functions been put under such close and exact scrutiny.

We learn that electrical lights are penetrating the viscera, and that the pathological changes in the blood-corpuscles are being very exactly noted and classified. The news of these things has already reached the laity. It is announced in a leading New York daily, that a celebrated microscopist has allowed a gentleman to marry because his white blood-corpuscles were—or were not—finely granular. In fact, there have been so many other interesting reports of this kind that we find it well to call attention to some of these devices with which humanity is becoming so closely environed.

We have spoken in a previous issue of the apparatus that has been invented by a French physiologist for measuring the amount of heat thrown off from the body in any given time. If we may believe the inventor, the temperature changes of our systems can now be put under the exactest supervision; a man can neither change his diet nor undergo a physical exertion without it being registered in British units. With the present delicate surface thermometers also, only local changes in nutritive activity can be determined. Active cerebration, an over-loaded stomach,

or a deep-seated inflammation, all send up the index. To a lively imagination the practical application of these various forms of thermometry promises the most extraordinary results in the cerebral department. When it is established, as it is hoped it may be, that the value of a thought is to be measured by the amount of cerebral tissue consumed and heat evolved, every man's intellectual calibre can be definitely established in degrees Fahrenheit; the problems of life will then be greatly simplified.

There has always been much ingenuity shown in investigating the normal and pathological conditions of the lungs, but never before have investigations presented such large, we may say sonorous, results. Mr. Edison, for instance, promises us a stethoscope, with which we hope nothing less than that the breeze from the epithelial cilæ may be heard and differentiated, as also that the noise from the development of a tubercle may be brought with melancholy distinctness to the ear. These are but hopes and promises, however, which may partially fail us. We take pleasure, therefore, in recording the more modest, but better established inventions of a gentleman from New Jersey; inventions which deserve notice, indeed, if only for the melody of their nomenclature. There is, first, the Respiratory Anemometer. This instrument consists simply of a tube, a valve, a movable pen, some gearing, a few levers, a strip of paper, and clock-work. By breathing into the tube, a record is obtained of the character of the respiration, with the relative length of inspiration and expiration.

Supplementary to this valuable piece of mechanism are the Pneumasyren and the Unison Resonator. The former gives, among other things, the character of the respiration, while the latter announces to the ear the smallest deposit of tubercle. With these three instruments, a stethoscope, a pleximeter, and a sounding towel, it will be strange, indeed, if phthisis cannot be arrested even in the third stage.

Dr. Richardson, of London, has utilized the microphone in such a way as to form what he calls an audiometer. By it the capacity of the ear to appreciate sounds can be accurately measured, and he has already made some interesting discoveries in regard to hearing. The application of the carbon telephone to urethral surgery is well known. Sir Henry Thompson, by attaching a form of this instrument to a Maillechort rod, finds that the presence in the bladder of the smallest particle of gravel even is readily appreciated. It only remains to extend its application to the pelvis of the kidney. Some time ago Dr. Nestler, of Germany, announced that he had invented an endoscope, with which he could see the interior of the bladder, and even of the stomach. At the recent meeting of the International Medical Congress, M. Trouné, of Paris, stated that with his electrical polyscopes he could accomplish this same result, and an exhibition of his instruments was

made. Thus the glory, as well as the necessity, of Alexis St. Martin is taken away.

We have referred to but a small part of recent mechanical achievements, but it is enough to show that the medical profession is progressing, and is, as usual, absorbing the other sciences into its own. The present inventive tendencies, of which, perhaps, we have spoken too lightly, show the impress which modern physics is making on medical science, and we would by no means undervalue its benefits when within the scope of practical utility.

ANNUAL REPORT OF THE SURGEON-GENERAL OF THE ARMY.

THE annual report of Surgeon-General Barnes shows that there were 21,000 white, and 1,942 colored troops in the army during the past year. The number of cases of sickness among the troops was about 42,000; the number of deaths about 670. The number of medical officers is 326, of whom 150 are acting assistant-surgeons. The amount of sickness and death among the colored troops appears to be much greater than among the whites. The number of cases of sickness is proportionately very large, since 42,000 cases among 23,000 soldiers would oblige each soldier to be sick twice during the year. The ratio of sickness to mortality is also very much greater than that among ordinary communities. Usually there is one death to every twenty-five or thirty cases of illness; in the army, however, there is apparently only one death to every sixty-two cases of sickness. These apparent discrepancies, however, are due to the peculiar method of compiling the statistics. Thus: a sick call is held every day, and all those applying for treatment on that day, unless sent to the hospital, are enumerated as new cases. In this way, a man may have a mild but chronic affection, calling for daily treatment, and be counted in as a new case each time he is seen by the surgeon.

This method of dealing with the figures has probably certain advantages, or it would not be adhered to; but it is liable to give a wrong impression as to amount of sickness in the army.

NEW TYPE FOR MEDICAL RECORD.

THE present issue of the RECORD appears with a new dress of type. We are excusable for congratulating ourselves on the fact, especially when we speak on behalf of our readers. As we considered it was not too early to begin a good deed, we resolved not to wait for the commencement of the next volume before making the change.

DEATH OF M. CHASSAIGNAC.—M. Chassaignac, to whom surgery is indebted for the introduction of the drainage tube into practice, died on August 26th. He had, for some time, retired from active life.

Reviews and Notices of Books.

I. **THE LAWS OF THERAPEUTICS; or, the Science and Art of Medicine.** By JAMES KIDD, M.D. Philadelphia: Lindsay & Blakiston, 1879, pp. 196.

II. **THE GROUNDS OF A HOMŒOPATH'S FAITH.** Three Lectures delivered at the request of Matriculates of the Department of Medicine and Surgery (Old School) of the University of Michigan. By SAMUEL A. JONES, M.D., Professor of Materia Medica, etc., in the Homœopathic Medical College of the University of Michigan. Philadelphia and New York: Boericke & Tafel, pp. 92.

I.—DR. KIDD is a physician in London enjoying a large practice among the upper classes. He happens to be the medical attendant of the Earl of Beaconsfield, and during the late Berlin conference was summoned thither to attend his illustrious patient. The homœopaths of London were quite jubilant at the honor thus paid to one of their own guild.

The London *Lancet*, with its proverbial acuteness, cruelly discomfited the enemy by declaring that Dr. Kidd was not that sort of a man, but, on the contrary, one "who repudiates the description attributed to him, and who by no means avowedly pursues the method of Hahnemann in his treatment." After both sides have had their say, Dr. Kidd, in the volume before us, speaks for himself. He first discusses the historical aspects of his subject, then devotes a few chapters to physiology, pathology, the natural history of disease, and the general subject of therapeutics. The three following chapters are devoted, to "Hahnemann's law of similars," to "Galen's law—the antipathic," and to a comparison between the two. In these three chapters we find the author's bias clearly expressed in favor of the former law. The rest of the book is devoted to other subsidiary matters. The apparent object of the book is to give prominence to the homœopathic idea, and we fear our contemporary the *Lancet* was a little at fault in its assertions concerning the author's "treatment." If a preference for the doctrine of "similia" does not constitute a homœopath in the ordinary acceptation of the term, we are at a loss to know what does. In justice to Dr. Kidd, however, it should be stated that he does not confine himself to homœopathy, but, when in a tight place, freely roams through the whole domain of medical science in search of remedial agencies. We are aware that it is the habit in Paris for the same medical publishers to issue both regular and homœopathic works. It now appears that this custom has taken root in Philadelphia.

II.—Much complaint has been made that the medical faculty of the University of Michigan lecture to homœopathic students, and thereby perhaps save some of them from becoming irregulars. It would appear, however, from the title-page of the work before us, that the tables had been turned, and that a homœopathic professor was lecturing to the regular students in the hope of seducing some of them from the paths of rectitude and (medical) virtue. Certainly, affairs are decidedly mixed in Michigan. But jesting aside—the author gives us a new definition, or rather mark of distinction, between the homœopathic physician and "his older brother in the science and art of medicine." The characteristic of the former, he says, is "not the law of cure, not the Hahnemannian hypothesis of chronic diseases; none of these, but simply this—his fixed faith in the efficiency of drugs." He then goes on to explain the nature of homœopathy, and more especially Hahnemann's connection with it,

indulging by the way in a good deal of pathos (we had almost written bathos). The writer wields a ready pen, and evidently believes that rhetoric may perhaps persuade, where logic fails to convince. His second lecture is devoted to a witty criticism of a rather extreme instance of polypharmacy, and advocates the use of a single drug at a time—that is to say, if the physician wishes to learn anything about the effects of the medicine he is using. This is all very well, but we fear that there are some physicians whose main desire is to cure their patients, and who are perfectly willing that somebody else should do the experimenting. It is not given to every one to be a "Dr." Carver, and we presume that for many years the shot-gun will be preferred to the rifle. There is, however, a good deal to be said on both sides of this question. In the third lecture the author advocates the use of the small dose. His argument on the whole matter may be briefly summed up in a few words: if the law of similars be true, the single remedy and the minimum dose are the logical and practical sequences. A good deal, however, depends on the *if*, and we can hardly accept the conclusions until the hypothetical is replaced by the positive. On the whole, the subject is presented in a less objectionable manner than is common with writers of his school. The book is interesting—in parts amusing.

ASTHMA; ITS PATHOLOGY AND TREATMENT. By J. B. BERKART, M.D., Member of Royal College of Physicians of London, etc., etc. London: J. & A. Churchill, 1878.

THIS agreeably written treatise upon an intractable disease is well worthy of possession. The cases with which the work abounds are effectively related, and well represent the views of the author. The objective symptoms justly demand a larger share of the reader's attention, and by an inevitable logic almost wholly separate the complaint from the usually accepted class of purely nervous affections. Every phase of organic lesion is duly considered, and we arise from the perusal of this monograph with a feeling that there have been satisfactory additions to our knowledge.

Reports of Societies.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Annual Meeting, October 27, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR.

THE Society was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Secretary, Dr. F. A. Castle. The Secretary then read the report of the Comitia Minora for the entire year, ending with the final meeting of the committee, held October 22, 1879.

The Treasurer then read his report, which showed a balance in the treasury of \$1,257.70.

The election of officers being next in order, the Vice-President appointed Drs. H. T. Hanks and H. B. Conrad tellers. The result of the election has been published.

REPORT OF THE COMMITTEE ON HYGIENE.

DR. J. C. PETERS, Chairman of the Committee on Hygiene, read extensively from a voluminous report

made up largely of material furnished by Dr. Roger S. Tracy and Dr. E. G. Janeway. The streets, the sewers, the drains, the privies, and the water-closets of the city, the noises made by the elevated railroad, street cars, carts, and other vehicles, the docks, the fumes arising from manufactories, and the Fourth avenue tunnel nuisance, were subjected to criticism.

The portion of the report relating to the health of the city showed a mortality from all causes during the nine months of 1879, ending with September, of 21,867 against, in round numbers, 26,000 in 1878, 24,000 in 1877, and an average for the first nine months of a series of years from 1878 back to 1871, inclusive, of 22,516.

There had been an unusual number of deaths from small-pox, although the disease had not prevailed epidemically. During the last nine months 89,574 vaccinations had been performed by the corps of the Board of Health under the direction of Dr. Taylor. Bovine virus had been employed exclusively.

The mortality from typhoid fever had been much less than in previous years. During the nine months of 1879 only 122 deaths had occurred from this disease against 156 in 1878, 179 in 1877, 207 in 1876, 251 in 1875, and an average for the first nine months of a series of years from 1878 to 1871, inclusive, of 201. The same notable diminution in the mortality from the severer forms of typhus was reported.

It was argued by Dr. Janeway that, from these figures, the stringent sanitary control exercised by the Board of Health over the tenement-houses and the tenement-house population of the city was beginning to be felt in decreased rates of mortality from preventable causes.

The mortality from measles had been comparatively small.

The mortality from whooping-cough had been comparatively large, showing a total of 466 for 1879.

The mortality from scarlet fever had been the largest it had been since 1860, the aggregate number of deaths having reached 1,370, against 741 in 1878, 781 in 1877, and 1,278 in 1860. The disease had not at any time during the past nine months prevailed epidemically.

The mortality from diphtheria had been less than for any corresponding nine months since 1872, showing a total of 453.

The mortality from croup had been less than two-thirds the usual average.

Diarrhoeal diseases had been steadily decreasing in number since 1876, when a mortality of 3,060 occurred, against 2,084 for 1879. The diminution was ascribed chiefly to the work of the special visiting corps of physicians appointed by the Board of Health for the summer months.

On motion, the report was accepted, ordered upon the minutes, and the Secretary directed to forward a copy to the Chairman of the Committee on Hygiene of the Medical Society of the State.

REPORT OF THE COMMITTEE ON ETHICS.

DR. F. V. WHITE, Secretary of the Committee on Ethics, read a brief report in which the Society was congratulated that its ethical health was much better than last year. In 1878 there were 175 cases, and in 1879, 22 cases for adjudication. Ethical questions had not absorbed the time of the Society and prevented it from contributing to the diffusion of true science, particularly to a knowledge of the healing art.

The report was accepted, and ordered to be placed upon the minutes.

REPORT OF COMMITTEE ON PRIZE ESSAYS.

DR. FORDYCE BARKER, Chairman of the Committee on Prize Essays, made the following report, awarding the prize to an essay written on "Affections of the Ear arising from Diseases of the Teeth," and bearing the motto: "Ore Audi":

"This essay is worthy of award from its careful study and appreciation of the physiological relations of the organs discussed, its original suggestions relative to their pathological associations, the clinical facts which seem to have been intelligently and honestly reported, its simplicity, lucidity, and correctness in style, its value as a contribution to practical medicine on an important class of affections which, as bearing any relations as cause and effect, has hitherto received but slight attention from medical writers."

On opening the envelope bearing the motto, Dr. Barker found the name of Dr. Samuel Sexton, of New York, to whom the prize was awarded.

Worthy mention was made of an essay "On a Simple Polarizing Apparatus and its Application to Practical Medicine."

The report was received, and ordered to be placed on the minutes.

REPORT OF THE CENSORS.

DR. H. G. PIFFARD, Secretary of the Board of Censors, read the report, in which was shown the Society's lack of legal power to take action with reference to certain cases of violation of the code. The functions of the board were of a three-fold character: 1. Those which pertain to them as members of the Board of Censors as established by law; 2. Those that are immediately incumbent on them by one of the sections of the system of medical ethics; and, 3. Those which devolve on them as members of the Comitia Minora, according to the by-laws of this Society. Under these heads the report was continued at some length, and then accepted and ordered upon the minutes.

REPORT ON AID FOR YELLOW-FEVER SUFFERERS.

DR. JOHN C. PETERS, chairman of the committee appointed to solicit aid for the families of physicians who died of yellow fever during the prevalence of that disease in the South in the year 1878, reported that the committee had received \$4,998.10, and distributed \$3,700, leaving in hand \$1,298.10. The number of physicians who died during the epidemic of 1878 was 101.

ANNUAL APPROPRIATION.

On motion, the sum of \$1,500 was placed at the disposal of the Comitia Minora, subject to the approval of the Society, with which to carry on the work of the Society for the ensuing year.

MISCELLANEOUS BUSINESS.

Under the head of Miscellaneous Business, a communication was read that had been sent by Dr. Wm. A. Hammond, calling attention to a statement in the published minutes of the Stated Meeting for September, in which the claim was made that Dr. John S. Billings founded the National Medical Library. Not in any way desiring to detract from all credit due to Dr. Billings, he wished to correct the statement made in the published minutes by saying that, while Surgeon-General, he founded this library several years before Dr. Billings was stationed at the city of Washington.

The communication was accepted, and ordered to be placed on the minutes.

REVISION OF THE PHARMACOPOEIA.

A resolution offered by Dr. Piffard was adopted, requesting the medical colleges of New York City to appoint their full quota of delegates to attend the next convention, to be held for the revision of the U. S. Pharmacopoeia, and protect the interests of physicians.

APPROPRIATION FOR THE TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE.

DR. PIFFARD offered a resolution to the effect that no appropriation should be made for the publication of the scientific Transactions of the Medical Society of the State of New York, but that they be authorized to contribute toward the publication of its business proceedings, to the end that the same shall be given a wider circulation.

On motion, the resolution was referred to the Comitia Minora.

On resolution presented by Dr. Piffard, the Comitia Minora was instructed to appropriate a sum not exceeding \$250 for the services of the Secretary for the ensuing year.

The Society then adjourned, to meet on the fourth Monday in November, 1879, at 8 P.M.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 8, 1879.

DR. JOSEPH W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

SUPPURATIVE PHLEBITIS—THORACENTESIS.

DR. J. LEWIS SMITH presented a specimen of suppurative pleuritis removed from an infant who died in one of the public institutions. The history of the case was as follows:

Frank, aged about eighteen months, and having ten teeth, entered the New York Infant Asylum, Aug. 9, 1879. His previous history was not ascertained, except that he had been feverish and fretful during the preceding three or four days. The following record of his state was made on the evening of the 9th: "A light, moist fur upon the tongue; has had one thin and greenish stool during the day; no vomiting; urine high-colored; has an occasional cough, apparently without much pain; frets when pressure is made on lateral portions of chest and abdomen; axillary temp., 104½°; fauces slightly red. There is marked dullness on percussion over entire right side of chest, but not so great in the mammary and infra-clavicular regions as posteriorly. Fine, moist râles are heard when the ear is applied over the lower angle of the right scapula, and coarser moist râles in the anterior portion of right lung. Brandy, quinine, and the usual poultice—one part of mustard to sixteen of flaxseed—were ordered, as also one teaspoonful every second hour of beef, wine, and iron.

August 10th.—Respiration as before; dullness, amounting to flatness on percussion, over entire right lung, except a little resonance in infra-clavicular and mammary regions; no fremitus is observed below the angle of the scapula when the baby moans or cries; axillary temperature, 102½°. Diagnosis: pleurisy, with effusion.

August 11th.—Pulse frequent, but not weak; frets much, and has at times the expiratory moan; but the cough is loose, and apparently with little pain; axillary temperature, 102°; otherwise, symptoms and physical signs as before, and the same treatment is continued. Evening; continues to have an occasional

expiratory moan; is thirsty and fretful; apex beat of heart in *linea mammalis*; pulse, 130; resp., 60; a distant vesicular murmur is noticed below the scapula on right side; bronchial respiratory murmur above the spine of scapula; the coarse râles previously noticed, which may have been moist, pleuritic sounds, have nearly ceased; flat percussion-sound, and absence of fremitus as before; since yesterday, at one examination, percussion over the mammary region gave tympanitic resonance, but now the sound is flat; no bulging of intercostal spaces; measurements of the two sides of the chest have been several times made, but the difference, if any, is slight.

The records state: Aug. 12th, temp., 101¼°; pulse, 120; resp., 54. Evening: tympanitic resonance again observed over right mammary region; otherwise, no notable change in symptoms and physical signs.

13th.—Temp. 103¼°; pulse, 160; resp., 80; coughs but little; moans occasionally. 6 P.M.: temp., 103°, resp., 76; pulse, 144. On the 14th and 15th little change occurred, the symptoms and physical signs remaining as before. The axillary temperature on the morning of the 14th was 101¼°; resp., 80; pulse, 140. Evening: temp., 104°; pulse, 160; resp., 88. 15th: morning temp., 103¼°; pulse, 140; resp., 84.

On or about August 15th the point of the hypodermic needle was introduced into the chest, about one inch below the lower angle of the scapula, but with no result; and, several days later it was again introduced two-thirds its length, without touching the liquid. On subsequent examination little change was noticed, either in symptoms or physical signs, except that, on August 20th, the records state that there was tympanitic resonance on percussion over both the infra-clavicular and mammary regions, while there was flat percussion-sound posteriorly; bronchophony was present in the scapular region, and the respiratory murmur observed when the ear was placed over the scapular and infra-scapular regions was indistinctly vesicular, or broncho-vesicular. Everything possible was done to sustain the vital powers; but during the month of September the patient gradually lost ground, becoming by degrees weaker and more wasted, and the febrile movement continued of a hectic character.

On Sept. 18th the axillary temperature was 101°, and the lymphatic glands of the neck were observed to be prominent. Death occurred October 2d, from exhaustion.

Autopsy on Oct. 3d: Is much wasted; abdominal organs apparently healthy; the liver extends two inches below the ribs; a few old pleuritic bands unite the anterior surface of the left lung to the ribs; this lung healthy, but not fully inflated; the anterior surface of the right lung is united to the ribs by adhesions firm but somewhat elongated; posteriorly over this lung is a purulent exudation extending from one inch above the base to within one inch of apex; vertical diameter of purulent collection about two and a half inches; lateral diameter about two inches. It is walled in anteriorly by the lung; posteriorly, by the costal pleura, which is nearly one line thick, and is easily detached from the ribs; and laterally, by adhesions. This abscess, therefore, extends over the posterior surface of the upper and lower lobes, and slightly over the middle lobe; the liquor puris has been mostly absorbed, so that the contents of the abscess, which have a pultaceous consistence, are composed mainly of the debris of the cell-walls and nuclei of pus-corpuscles; very few unbroken cells can be discovered by the microscope, but the mass consists mainly of granular matter with

shiny, oily particles resulting from granulo-fatty degeneration and destruction of the cells; the entire amount of purulent matter is not more than one ounce, probably less; lung underneath the pus apparently somewhat compressed, but healthy; mucous membrane of air-passages also healthy; an abscess in the right side of the neck, resulting from the adenitis and cellulitis, contains about two teaspoonfuls of pus; moderate hyperplasia, without cheesy degeneration of bronchial and mesenteric glands.

There are several facts of interest in this case. One was the difficulty of diagnosis. The differential diagnosis of pleurisy with effusion, and pneumonia in infancy, is often very difficult; for those signs which we rely on, as indicating the presence of a liquid in adult cases, are, for the most part, absent, or feebly marked in the infant, even when the amount of liquid is large. In the pleurisy of the infant we may notice, when the ear is applied over the affected side, bronchial respiration, broncho-vesicular or vesicular, for all these modifications of respiratory sound are transmitted through the liquid, either from the lung on the affected side, or from the healthy lung of the opposite side, since the small amount of liquid in infantile cases does not present a barrier to the transmission of sound, as in adult cases. The pleurisy in the above case being on the right side, the important sign of displacement of the heart was lacking, which is commonly present in infants as well as adults when the effusion is on the left side. Repeated measurements showed no notable difference in the two sides. The slight difference noticed in the examinations varied so much that we were in doubt whether there was any actual difference in the dimensions, the tape being carried from the middle of the sternum to the spine a little below the nipple.

I was led to diagnose pleurisy, contrary to the opinion of other good observers, from the fact that there was such extensive flatness on percussion developed in so short a time—the percussion-sound of pneumonia being dull, but not flat; from the absence of fremitus when the hand was placed over the infra-scapular region; and from the character of the respiratory sounds, which were not so distinct, and were more distant than in cases of pneumonia. Nevertheless, there was no bulging of the intercostal spaces; and, according to my experience, there frequently is none in the pleuritic effusions of infancy, even when the quantity of liquid is quite large. Why the hypodermic needle did not touch the pus I am unable to say. Subsequently, the persistence of the symptoms, especially of the fever, confirmed the diagnosis. The profession have learnt in recent years that pleurisy with effusion is not uncommon in infancy and childhood, and that it is often suppurative in those who are cachectic—as after scarlet fever—and in foundlings. It is seldom that an epidemic of scarlet fever occurs in New York, that I do not meet cases of empyema as a sequel of this exanthem, and almost every year cases of idiopathic empyema occur among the children in our asylums.

DR. SMITH remarked that he had sometimes observed fremitus in undoubted cases of pleuritic effusion, and that in some cases he was able to explain its occurrence as follows: The lung became attached by pleuritic adhesions to some part of the parietes of the chest, against which it was more or less compressed. This gives rise to similar anatomical conditions for the production of fremitus, as in pneumonia; namely, a solid lung lying against the ribs. Thus, in one case in which fremitus was observed along the side, and upon the front aspect of the

chest, the subsequent autopsy showed the presence of adhesions at these points. There is another interesting fact as regards the pleuritic effusions of young and feeble children. They are prone to atelectasis, and the liquid meeting therefore less resistance on the side of the lungs than of the ribs, compresses the lungs, while, as stated above, it produces little effect in pressing outward the intercostal spaces and the ribs.

DR. VAN GIESEN referred to a case of pleurisy which progressed from its inception to the post-mortem without cough.

THE DIAGNOSIS OF PLEURISY FROM PNEUMONIA.

DR. JANEWAY remarked that there was usually great difficulty in diagnosing pleurisy from pneumonia. Some authors believed that the presence or absence of vocal fremitus would settle the question. He had met, however, with vocal fremitus in pleurisy, and found it absent in pneumonia. He recalled two cases of empyema in which there was flatness along the inter-lobar line, bronchial breathing, bronchophony, and exaggerated vocal fremitus over the flat region. An hypodermic needle was introduced both times, but no fluid was discovered. There was a still more doubtful series of cases, in which, at the outbreak of empyema, you get crepitation in the line of the axilla, followed by bronchial breathing, bronchophony, and flatness. Here were the physical signs of pneumonia, with nothing more to help the diagnosis than the protracted course of the disease and the occurrence of hectic fever.

In using the hypodermic needle upon the chest, he had often failed to get fluid when fluid actually existed in the pleural cavity. He believed that the failures could be explained in several ways. The suction of the syringe might not be perfect, a piece of false membrane might be pushed in front of the needle, or a flake of exudation might surround the point, or the point of the needle might enter an adherent portion of the lung. He generally used a veterinary hypodermic syringe for the purpose, as the aperture was larger and less apt to become clogged.

DR. SMITH had frequently met with cases of empyema in which the lung was adherent at different points. In the latter situations he had detected vocal fremitus.

DR. JANEWAY had met with such adhesions in which vocal fremitus was not present, while, on the other hand, he had found fremitus over a space in which fluid was imprisoned in a tight sac.

CONCERNING A FREE OPENING IN EMPYEMA.

DR. SMITH remarked that an interesting point arose in reference to the treatment of empyema when it was known to exist. Of course it was proper to let out the pus. But how, was sometimes the question. He had a case in private practice of empyema after scarlet fever, and had been aspirating the chest for six weeks, at intervals of seven or eight days. The case had not progressed well, and he was inclined to think that a free opening would be preferable.

DR. POST was in favor of making a free opening in such cases, and of allowing it to remain.

DR. JANEWAY thought it was well to try aspiration once or twice, with a view of diminishing the size of the cavity; but, failing in the latter attempt, it was then advisable to make a free and permanent opening.

DR. POST had noticed that, in cases of empyema

especially in children, there was very rapid improvement after free evacuation.

DR. LEALE referred to a case he had treated in 1865. The patient was a man from whose chest he had removed seventy-two ounces of pus, and there was no reappearance, the recovery being perfect. He also alluded to the case of a child, aged two years, from which sixteen ounces were evacuated at one aspiration. The chest opening was closed hermetically, according to Howard's plan. There was no re-formation of the pus, and the child made a perfect recovery. He also alluded to cases in which the pus reaccumulated after aspiration, and where it was necessary to establish free drainage. Whenever the openings became closed, hectic fever resulted.

DR. SMITH wished, in that connection, to refer to a point in reference to the diagnosis of these cases. In the adult it was well known that aid in diagnosis was given by measurement. Not much, if any, assistance was given by such a method of procedure in children. Especially was this the case in weakly subjects who had cedema after scarlet fever. Such children were very prone to atelectasis; and when pus accumulated in the pleural cavity, the lung was compressed rather than the ribs thrown out. He believed that, in the majority of such cases, there was not much difference in the measurement of the two sides. In one instance the circumference on the affected side was less than that on the other.

DR. WYETH stated that it was the practice of König, a German surgeon, to remove a section of the rib one and a half centimetres long, when the intercostal spaces were too narrow to allow free drainage. König then used a three-per-cent. solution of carbolic acid as an injection.

DR. ROBINSON believed that there were only two signs that enabled any one to diagnosticate pleurisy, viz., absolute dullness, and absolute absence of respiratory murmur.

DR. JANEWAY relied a great deal upon the distant respiratory sound in pleurisy with effusion.

(To be continued.)

Correspondence.

LITHOTRITY WITH EVACUATION OF FRAGMENTS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your editorial of August 16, 1879, page 159 of the RECORD, on "Lithotritry with Evacuation of the Fragments—Part I. The Development and Principles of the Operation," it is stated that "he (Prof. Bigelow) saw the fact, recognized it, and promptly made use of it. The fact was the tolerance of the bladder to the use of instruments within it. . . . Many lithotritists went beyond the three-minute rule, but they did it only occasionally and, as it were, under protest; . . . yet no one, until Prof. Bigelow, drew what seems now such a palpable inference. Sir Henry Thompson claims that he did so; but, so far as we can judge, he did no more than many others; that is, he departed, in exceptional cases, from the rule of short sittings; but it was only a drift, and was very different from Prof. Bigelow's sudden recognition of a principle of general application." And further on, "he (Prof. Bigelow) had then enunciated the principle; he had put lithotritry upon a new basis; he had *fait école*."

Some twelve or thirteen years ago, my friend, Prof. E. M. Moore, of Rochester, gave me his conception of an ideal operation of lithotritry, by which the stone was to be seized, crushed, and entirely removed from the bladder at a single sitting. Prof. Moore spent much time upon an instrument devised for this purpose, and, it seems to me, recognized the fundamental principle of Bigelow's operation, namely, "the tolerance of the bladder to the use of instruments within it." As evidence of this, I refer to Prof. Moore's article, "A New Method of Lithotritry," read before the American Medical Association in 1870, and published in Vol. XXI. of Transactions, at page 251.

I beg leave to quote briefly from this article, page 251: "I have long been convinced that lithotritry cannot be a successful rival of lithotomy until its processes can be finished at the same sitting that commences them. This implies a period of time short enough to be tolerated. Lithotomy is a violent proceeding." . . . Page 252: "But the severe handling in lithotomy receives its compensation in the fact that the foreign body is absolutely removed, and the process of repair is begun with no cause of interference. . . . Lithotritry is usually but the withdrawal of half the splinter, and converting the remaining half into a sort of chevaux-de-frise, bristling at all points. The period of time that seems allowable in lithotritic handling is limited by Erichsen to ten minutes. Thompson prefers five. If every particle were removed, I cannot but believe that much more may be allowed. Probably thirty minutes could be borne quite as well as in the ordinary condition subsequent to a sitting."

Then follows a description of the instrument, and a report of a case in which it was used, with the statement on page 254 that "my plan proposes a sort of reversal of all the methods of lithotritry; to hold the stone gently, and not crush; to rub down, not break; to wash away at once, and not allow the fragments to be rounded by time and attrition, as preparatory to their evacuation."

On account of pressure of professional labor and lack of skilled workmen, Prof. Moore did not complete his instrument in all its details; but it seems evident, on reading his paper, that he had drawn the "palpable inference," and made "the recognition of a principle of 'general application,'" on which the success of Dr. Bigelow's operation depends.

Very respectfully yours,

WILLIAM S. ELY.

ROCHESTER, N. Y., Oct. 29, 1879.

PHARMACOPŒIAL REMEDIES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—It is generally expected that regular physicians will use the remedies or formulæ of the Pharmacopœia as far as they will readily meet the wants of patients; and especially in preference to secret and advertised medicines. But how often is this neglected, even among the Nestors of the profession—those whom we delight to admire and honor. In a late work on clinical medicine by a standard authority, for constipation we find recommended Lady Webster's dinner-pills, *Grains de Santé*, Tamar Indien, and other like remedies, as if the Pharmacopœia did not afford equally good and even better laxatives. The so-called Lady Webster pill is that of aloes and mastic of the U. S. P., which was not suggested by Lady Webster, but merely preferred by her. The formula is nearly as old as that of the aloes and

myrrh pill, or pil. rufi, which is nearly two hundred years old. The object of the mastic is to retard the solution of the aloes in the small intestine, and thereby cause it to act upon the large bowel. The pill is a good one, but should not be called Lady Webster's, at least by physicians, for that leads to the belief that Lady Webster was a better prescriber than the doctor.

The recommendation of the *Grains de Santé* is in still worse taste. They are composed of aloes and jalap, and are very carelessly made indeed, and apparently not of the best materials. The combination seems a strange one, but is an excellent one, when both the small and large bowels are to be acted upon. One grain of extract of socotrine aloes and one of resin of jalap makes an active pill for most persons; one grain of the former and two of the latter is far more powerful in its action than most persons would suppose. They can be supplied by apothecaries, either silvered or sugar-coated, and made of purer articles at a less price than the imported imperfect pills. Tamar Indien is apparently composed of resin of jalap in fig-paste; they are very expensive indeed. The Friedrichshall, Pullna, and Hunyadi waters are little more than solutions of epsom and glauber salts, and should not be prescribed for poor persons at least, as their chemical composition is well known, and a prescription can easily be given for these inexpensive articles, with great saving to persons in moderate circumstances.

PHARMACOPŒIA.

CAUSE OF SUDDEN DEATH IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Dr. M. P. Jacobi's note upon this subject, with the replies to it, were perused with interest in view of a case I desire to report as evidence corroborative of Dr. Robinson's statement, that pain of the puncture *pur et simple* may be the cause of a reflex impression upon the nervous system and heart sufficiently overwhelming to induce death. The case is as follows: W. Bronson; farmer; married; æt. 43. Left pleural cavity completely filled with effusion; heart beating some three inches to right of right border of sternum. Cervical veins turgid. Great dyspnoea. Had been sick four months. Aspiration was attempted. The act of puncturing gave him no pain, but a few minutes after the needle was introduced he began to complain of pain in the region of the wound. It was also diffused over that side of the thorax. Moving the needle did not increase it greatly. One gallon of serum was withdrawn without, apparently, any excessive diminution of the contents of the cavity. Not a single unfavorable symptom save the pain was experienced. Four weeks later the effusion, in spite of treatment, being as great as before, aspiration was again essayed. From the minute after the needle was inserted he complained of pain, which in a short time became most intense. Allowing the needle to rest quietly, by intermitting the aspiration a hypodermic of morphia was given. After a sufficient time, this not sufficing, the needle was withdrawn, reintroduced, and aspiration proceeded with. About fourteen ounces of fluid had been *very slowly* taken out, his complaints steadily increasing, when a most alarming collapse came on, which only, by the utmost exertions, was prevented from proving fatal. The suffering continued for several hours. A third time, one week later, I again attempted aspiration, the cavity as tense as before; this time preceding, by a hypodermic of

morphia a sufficiently long time for its effects to be thoroughly felt, the introduction of the needle. Less than one ounce had been withdrawn, he complaining a little, when a most overwhelming—I can describe it in no other way—attack of pain supervened, and the same collapse came on, which once more seemed likely to prove fatal. Aspiration was not again attempted.

In this case the pain alone was the sole cause of the collapse. In the first operation, where he had very little pain and such a large quantity of fluid was taken away, not a single unfavorable symptom made its appearance. In the second operation, where the pain was most intense, it caused a nearly fatal prostration. The small quantity of fluid removed forbids any other assumption. The effect the last time, where every precaution was taken, is confirmatory of this; for less than one ounce had been aspirated when the same alarming symptoms supervened.

Respectfully,

G. E. GOODFELLOW, M.D.

ELECTRICITY A PARALYZING AGENT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—The article under the above heading, by Dr. Poole, published in No. 18 of the *MEDICAL RECORD*, scarcely requires any refutation. To every one acquainted with electro-physiology a few quotations from it will be sufficient to prove the fallacy of the author's theory. For instance, he says:

"It is important here to note, as negative evidence of the truth of our proposition, that Prof. Trowbridge, of Harvard College, *has demonstrated* (italics ours) that the supposed natural currents of electricity, believed by Matteucci and Du Bois-Reymond to be present in nerve and muscle in repose, do not exist," etc.

"Nor is electricity known to be generated at all in the bodies of men and animals, since even in the case of certain electric fishes, which display a remarkable use of this agent, the electricity which they discharge may be simply induced in them by the opposite electricity of the media surrounding them," etc.

"In view of the present state of knowledge on this subject, those who assert that natural electricity plays any part in the vital operations of the living organism, will have to begin anew the task of eliciting evidence in support of that doctrine."

"We assert that electricity is a paralyzer of nerve-tissue, and we claim that *all the effects it produces* (italics ours), as employed for therapeutical and physiological purposes, may be readily accounted for on this view of its action."

"We shall appeal to the recognized authorities themselves in support of our thesis," etc.

Fortunately the time for speculating and theorizing, which had so long retarded the progress of medicine, has passed away, and facts based on experimental researches have now to be given in support of every assumption. The existence of inherent currents in the muscles and nerves, discovered already by Galvani, was demonstrated half a century later with most exact scientific methods by Du Bois-Reymond,* and the elucidation of the laws of the electrical phenomena in muscles and nerves constitutes now one of the best chapters of physiology—the muscle and nerve physics. Hermann† attempted to attack this

* E. Du Bois-Reymond: *Untersuchungen über thierische Electricität*. Berlin, 1843 and 1849.

† L. Hermann: *Weitere Untersuchungen zur Physiologie der Muskeln und Nerven*. Berlin, 1867.

theory with arguments far more striking than those brought forward by the author of the article, but they only served to establish on a still firmer basis the whole doctrine of animal electricity.*

As regards the paralyzing hypothesis of electricity, one experiment with the galvanoscopic frog-preparation will prove its absurdity.

By stimulating the sciatic nerve with a very weak induced current, scarcely any muscular contraction is produced; but if we pass through the nerve an ascending galvanic current and then stimulate it as before (in its catelectrotonic region) with the same induced current, a powerful and prolonged contraction—tetanus—will follow. The author of the paper would explain these phenomena by paralysis of the nerve causing the contraction of the liberated muscle. If we now reverse the direction of the polarizing current, and again stimulate the nerve with the same induced current and at the same point as before (now anelectrotonic region), no contraction can be called forth even with the most powerful current. Or, instead of reversing the electrotonizing current, we simply stimulate the nerve above it, and thus produce the most powerful tetanus, while by stimulating the nerve below the electrotonizing current, no contractions are produced, however strong may be the stimulating current. We may repeat this experiment indefinitely, and shall always obtain the same result—either tetanus or a complete absence of contractions, according to the direction of the polarizing current. If, then, the author considers the contraction a consequence of the paralysis of the nerve induced by the current, he must admit that the absence of contractions is the result of an opposite, *i. e.*, tonic condition of the nerve, although induced by the same current. Therefore, according to his own theory, under certain conditions the electric current produces in the nerve a condition entirely reverse to paralysis assumed by him. Should the author object (in accordance with his theory) to the stimulation by electricity, the same result may be obtained by applying a chemical stimulus (solution of common salt), or even by a mechanical stimulus. Any one acquainted with Pflüger's *Physiologie des Electrotonus* will find it easy to give similar illustrations.

The author has conceived an erroneous theory, because he has *not* "appealed to the recognized authorities" in electro-physiology. He was evidently impressed by the reasonings of some eminent physicians (Radclyff, Russell Reynolds, Anstie, and others), whose merits are certainly unquestionable in matters of practical medicine, whereas in electro-physiology the classical researches of Du Bois-Reymond, Pflüger, Bernstein, and some others, have to be taken as a guide.

WM. B. NEFTEL.

Obituary.

OLIVER WHITE, M.D.,

NEW YORK.

DR. OLIVER WHITE died Nov. 7th, at his residence in this city, of cardiac disease, aged 69 years. He was born in the town of Somers, N. Y., a few miles from this city, April 9, 1810. By descent Dr. White belonged to one of the oldest and most distinguished families in New England. His great-great-grand-

father was Rev. Ebenezer White, the lineal descendant of Judge Thomas White, of Weymouth, Mass., who was a member of the Colonial Court in 1636, and figures with honor in the musty colonial records of that time. Dr. White's great-grandfather was the Rev. S. White, but his grandfather appears to have rebelled against the traditions of the elders, and to have insisted upon studying medicine in preference to theology, and appears in the local annals as Dr. Ebenezer White. His son, Ebenezer White, Jr., followed in the footsteps of his father, and was a physician of high local repute in Somers and the adjacent towns. Oliver White, son of the latter, pursued his first medical studies in his father's office, but subsequently entered the medical department of Yale College, where he was graduated doctor of medicine in 1831, being at that date 21 years old. He was licensed to practise by the State Medical Society of Connecticut during the same year, and at once entered upon active practice, removing to this city for that purpose. In 1836 he was elected a member of the Medical Society of the County of New York, and served both as President and as Vice-President of that organization. About that time there was a great deal of professional controversy, bickering, and division among medical practitioners in this city, and it was in the midst of this state of things that a few young practitioners, Dr. Willard Parker, Dr. White, and others united in the formation of that now venerable institution, the Academy of Medicine, of the original Fellows of which Dr. White was one of the few survivors, having served it in the capacity of Vice-President. He was also one of the founders of the Society for the Relief of the Widows and Orphans of Medical Men—indeed, one of its principal promoters, having been at different times its President and Vice-President, and for over twenty years one of its active managers. He was a member of the American Medical Association and of the State Medical Society, to whose "Transactions for 1864" he contributed a valuable memoir entitled, "Impalement through the Vagina, with Recovery." Dr. White has been for years one of the consulting physicians of the Presbyterian Hospital and the President of its Medical Board, serving at the same time upon the consulting staff of the Northeastern Dispensary and as a Trustee of the New York Dispensary. He received the honorary degree of M.D. from Bellevue Hospital Medical College in 1875. Dr. White leaves a considerable fortune, but no direct heirs. His widow survives him. The funeral services took place at one o'clock, P.M., Nov. 10th, at the First Presbyterian Church, Fifth avenue and Twelfth street, of which he was an active and valued member. The New York Academy of Medicine and the Medical Society of the County of New York, and other Societies of which the deceased was a member, attended the services.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 2d to November 8th, 1879.

SUTHERLAND, CHAS., Col. and Surgeon. Having reported at Division Headquarters as Medical Director of the Division, is assigned to duty at the Presidio of San Francisco, Cal., from this date. S. O. 180, Div. of the Pacific and Dept. of California, Oct. 24, 1879.

MUNN, C. E., Capt. and Asst. Surgeon. To take post at Fort Hays, Kan., and after reporting there, to

* E. Du Bois-Reymond: *Gesammelte Abhandlungen zur allgemeinen Muskel und Nerven Physik*. Berlin, 1877, p. 319.

proceed to Fort Garland, Col., and report to Col. McKenzie, 4th Cavalry, for duty with the column now organizing there. S. O. 217, Dept. of the Missouri, Oct. 30, 1879.

HOFF, J. V. R., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Shufeldt, to comply with orders from A. G. O. in his case. S. O. 98, C. S., Dept. of the Platte.

SHEFFELDT, R. M., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Laramie, and assigned to duty as Post Surgeon at Fort Fetterman, Wyo. T. S. O. 98, Dept. of the Platte, Oct. 29, 1879.

APPEL, D. M., 1st Lieut. and Asst. Surgeon. Relieved from duty at Fort Stanton, and assigned to duty at Fort Bayard, New Mex., as Post Surgeon. S. O., 109, Dist. of New Mex., Oct. 31, 1879.

APPEL, A. H., 1st Lieut. and Asst. Surgeon. Assignment to duty at Fort Bennett revoked, and to repair to Fort Pembina, Dak. T., and report to the comdg. officer for duty as Post Surgeon. S. O. 118, Dept. of Dakota, Oct. 27, 1879.

Changes in the Medical Corps of the Navy during the week ending Nov. 7, 1879.

BOGERT, E. S., Surgeon, and M. D. JONES, Pd. Asst. Surgeon, detached from the U. S. S. Monongahela, and wait orders.

WAGGENER, J. R., Pd. Asst. Surgeon, detached from the New York School Ship St. Mary's, and ordered to the Receiving Ship, Boston.

DEANE, C. W., Asst. Surgeon, detached from the Receiving Ship, Boston, and wait orders.

ROSS, Jno. W., Pd. Asst. Surgeon, detached from duty with the National Board of Health, and ordered to the School Ship St. Mary's.

LIPPINCOTT, GEO. C., Pd. Asst. Surgeon, detached from the Navy Yard, New York, and ordered to special duty, Bureau of Medicine and Surgery.

NOURSE, C. J., Asst. Surgeon, detached from the Receiving Ship, Norfolk, and ordered to U. S. S. Tallapoosa, temporarily.

ANDERSON, F., Pd. Asst. Surgeon, ordered to the Navy Yard, New York.

GARDNER, J. E., Asst. Surgeon, ordered to the Receiving Ship Franklin, Norfolk, Va.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 8, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 1, 1879....	0	13	41	1	66	32	0	0
Nov. 8, 1879....	0	12	36	1	64	40	1	0

THE YELLOW FEVER.—The number of deaths that occurred from yellow fever in the city of Memphis for the week ending November 8th, was eight. No new cases have been reported within ten days.

THE PLAN FOR A NATIONAL PUBLIC HEALTH ASSOCIATION.—The following circular explains itself:—

NATIONAL BOARD OF HEALTH,
WASHINGTON, D.C., Nov. 1, 1879.

To the Sanitarians of the United States:

By the act establishing the National Board of Health it is made the duty of the board to report to Congress at its next session a plan for a national public health organization, which plan shall be prepared after consultation with the principal sanitary organizations and the sanitarians of the several States of the United States, special attention being given to the subject of quarantine, both maritime and inland, and especially as to regulations which should be established between State or local systems of quarantine and a national quarantine system.

In order to fulfil this requirement, the National Board of Health has requested those interested in the subject to communicate their views to the board, and now respectfully invites members of State and local boards of health and sanitarians generally to meet with it in conference in the city of Nashville, Tenn., on the 18th to 23d November meeting of the American Public Health Association.

J. L. CABELL,
President National Board of Health.

T. J. TURNER,
Secretary National Board of Health.

THE CHINESE IDEA OF DIET.—Dr. Dauphin W. Osgood, Surgeon to the Foochow Medical Missionary Hospital, Foochow, China, in his interesting report just published, says:

"The Chinese usually inquire 'What shall I eat?' and if we would gain their confidence, it is well to give them careful dietetic directions, as the native doctors rarely neglect to give minute instruction in regard to food.

"I take a few directions from the 'Golden Mirror,' a native work compiled by order of the Emperor Chien Lung, relating to diet. It is said that horse-flesh may be eaten, if care is taken to avoid the part that has been covered by the saddle.

"The liver must not be eaten, as it will cause death, unless the eater avails himself of the following receipt, which is published in the above mentioned work:

"B. Take the excrement of a male rat, pulverize and dissolve it, and take internally as required.

"A white horse with a black head, if eaten, will cause insanity. Women who are pregnant are required to abstain from eating turtles, chickens, and ducks, for fear that their offspring will be deaf and dumb. It is to be feared that the child will have hare-lip if the mother eats rabbits.

"Pears are said to cause the ague, and onions, if eaten in the first month, will cause skin diseases.

"Nearly all kinds of food are divided into three general classes, viz., hot, cold, and medium. Medicines are similarly divided with the addition of two or three extra divisions. Diseases are also classed as hot and cold.

"The Chinese are gradually learning to use western medicines, and the demand for them will doubtless increase. The sales for the most part have been quinine, tr. iron, carbolic acid, and santonine. The receipts from sales have amounted to \$76.77. There is occasional inquiry for medical books. Dr. Henson's works are somewhat behind the time, having been printed twenty years or more, but are liked by the Chinese. Dr. Kerr has done good service by translating a work upon chemistry, and is preparing a work upon materia medica, also one upon skin dis-

cases. A good work upon anatomy, well illustrated, is a great desideratum in China. This might be effected by a few of the medical missionaries dividing the work, and then submitting their several translations to a committee for final revision before publication."

PROF. JAMES AITKEN MEIGS of Jefferson Medical College, Philadelphia, died Nov. 9, aged 50 years. An obituary notice will appear in our next issue.

TREATMENT OF DIPHTHERIA.—Dr. F. A. Hubbard, Taunton, Mass., writes:—

In numerous cases of diphtheria I have found the following of great use:

- B. Sodii hyposulphitis,
Potassæ chloratis, ss. 3 i.
Aq. cinnamomi. 3 iv.—viii.

M.

A more convenient form is:

- B. Sod. hyposul.,
Potass. chlo., ss. 3 ss.
Ol. cinnam. gtt. x.

M.

This mixture may be dissolved in water as required.

The solution may be used as a gargle, taken internally, or applied as a spray. With its use the fetor is reduced to little or nothing, and improvement is usually rapid. In connection with this, I have used small quantities of "Tully's powder," with quinine, brandy, and other supporting measures, as required in each case.

Externally, over the swollen glands, hot fomentations or camphorated oil with a flannel bandage.

If there is dyspnoea from extension of membrane downward into the bronchi, the vapor of lime slaking in hot water. A coffee-pot is useful here, for the most unwilling can be made to inhale the steam as it escapes from the spout. However, when the lungs are attacked, treatment is of little account. At the outset of the disease I usually give a mild aperient.

FACULTY OF THE UNIVERSITY OF MARYLAND.—The following changes have been made in this Faculty. Prof. Frank Donaldson has resigned the chair of Physiology and Hygiene, and will occupy the chair of Clinical Professor of Diseases of the Throat and Chest. Prof. F. T. Miles will fill the chairs of Physiology and Anatomy, in addition to his duty as Clinical Professor of Diseases of the Nervous System.

THE COMMITMENT OF PERSONS TO HOSPITALS FOR THE INSANE.—Dr. Isaac Ray delivered a very interesting lecture on this subject before the Philadelphia Social Science Association at the College of Physicians in that city, on Thursday evening, October 23d. Dr. Ray began by remarking that just precisely what legislation is required, touching this subject, is one of the vexed problems of social science. In the sudden and violent forms of insanity the patient is placed under strict surveillance, his wishes are disregarded, etc., and yet this is justified by common sense and by the common feeling of mankind. No-body would question the right of a man to confine his wife to the house if she were bent upon self-destruction or abused her children. But being in institutions, they can be better treated than at home, and it would seem natural to make choice of them for the confinement of patients. The matter is regulated by an act of Assembly passed in 1869, which requires the sanction of two physicians. It is alleged that physicians may be biassed by their relations to

the family, by false representations, or make mistakes, and by some it is proposed to make the confinement of the insane the subject of a legal investigation, to be conducted by some magistrate, judge, or commissions appointed for the purpose. If there is to be an inquisition, who so competent to make it as medical men, when it could be so done without unnecessary trouble or publicity. It may be that the liberty of any person in the community is at the mercy of the physician, but so is the life of any one who is ill. In signing the certificate of insanity the physician performs a professional service, and is responsible to the laws of his country. If the matter were supervised by a judge or magistrate, owing to the stress of other duties, it would become a mere matter of form. It is not improbable that persons are detained in confinement who never were insane, or kept confined after they have recovered. Where this is supposed to be the case, friends should be called and made to show cause why the patient should not be detained; the matter should be advertised, and the investigation of each case occupy at least two days. To hurry through an insane asylum once or twice a year and listen to all the tales told would not be enough. Proper judicial investigation is what the public demands. The officers and physicians of our hospitals and institutions have no interest in detaining a patient. Their salaries are the same in either alternative. The safeguards already established are sufficient for the purpose; but at the same time it is advisable that there should be a supervisory board established, which should be directly responsible to the government. The act of 1869, however, provides that application can be made to the judges, and any person can be brought before them and have a hearing upon a writ of *habeas corpus* at the request of a respectable citizen. The speaker then referred at some length to the pauper insane supported at the public expense, and thought that they should have the benefit of hospital treatment, and that towns and cities should be compelled to send their paupers, who could not be comfortable elsewhere, to hospitals, and also that people should not be allowed to keep insane persons at home in confinement.

LARYNGEAL PHTHISIS.—The mooted question in regard to the pathogeny of this affection has received some additional light through the labors of Heinze, of Leipsic. This author cites 475 cases which were examined in the dead-house. He found the larynx ulcerated in 30.6 per cent. of all the cases, and the intestines in 51.3 per cent. The disease was oftenest found between the ages of 21 and 30. There were tubercles in the larynx or trachea, or both, in 94 per cent. of the cases. The author concludes: first, that primary tuberculosis of the larynx is not proven; second, that it is impossible to tell positively whether an ulcer is tubercular without an examination of the lungs, although a very probable diagnosis may be made by the help of the laryngoscope; third, a cure of laryngeal tuberculosis will, most probably, never be made.—*St. Louis Clinical Record*.

INCREASE OF CONSUMPTION IN SOUTHERN LATITUDES.—Attention has heretofore been called to the fact that there has been a steady increase of deaths from phthisis among the natives of the Madeira Islands, and in Naples, Florida, and other health resorts. It now appears that the same thing is happening in New Orleans, and the mortality has recently been so great that attention has been called to the fact by the local press. During the first week in August, the

mortality from consumption in New Orleans was twenty-four, which at the same rate throughout the year would be an excess of that from all fevers combined. It is thought that the increase is only in part due to the visitors coming south for their health.—*Phila. Med. and Surg. Reporter*.

EDITORIAL CHANGES.—The editorial management of the *Canada Medical and Surgical Journal* has changed hands. Dr. Fenwick, who has edited the journal for the past fifteen years, has resigned, and his place has been taken by Drs. Geo. Ross and W. A. Molson. The recent numbers keep up its reputation for a well-conducted journal.

MEDICAL COLLEGE OF OHIO.—Dr. Jas. G. Hyndman, by unanimous vote of the trustees, has been appointed Lecturer on Medical Chemistry at the Medical College of Ohio. Dr. Hyndman has been associate editor of the *Cincinnati Lancet and Clinic*, and during this time has been connected with the college laboratories in various departments.

THE WAY IT WAS DONE IN LOUISVILLE.—Under this heading the editor of the *Medical Herald* charges a distinguished New York oculist with highly unprofessional conduct. It is stated that for two months prior to September 25th, the local press published announcements at intervals, to the effect that the gentleman referred to would visit Louisville, and would see patients at 2 o'clock every day from Sept. 25th to Oct. 1st, at the office of a friend and former pupil. With the said announcements were the statements that the New York doctor was the greatest oculist, as well as hygienist in the world. He arrived, and received patients as it was said that he would. Notwithstanding the *Herald's* belief to the contrary, it seems so unlikely that the doctor knew anything of, or had anything to do with the newspaper publications, that we refrain from giving any names.

INDIANA, ILLINOIS, AND KENTUCKY TRI-STATE MEDICAL SOCIETY.—This Society met at Evansville, November 4th, 5th, 6th, and 7th. The annual address was delivered by the President, Dr. J. A. Ireland. Public addresses were made by Dr. J. M. Keller, of Louisville, and by Dr. E. H. Gregory, of St. Louis. A large number of papers were presented.

FROZEN MEDICINE.—It is asserted by Dr. Edwin Andrew that many drugs can be given with superior advantage by first freezing them. Antiseptic, astringent, anti-emetic, and nauseous medicines come under this head, and can be combined with ice without difficulty. An especially good feature of this plan is in its affording a possibility of the stomach's retaining medicines which it would reject when given in ordinary ways.

HOMŒOPATHY IN CAMDEN COUNTY, N. J.—The regular profession in Camden County, New Jersey, has been very much exercised of late.

Some time ago, the county erected an insane asylum, and appointed a committee to manage it. This committee, not being well posted in medical matters, suddenly appointed a homœopath as superintendent of it. This, of course, isolated the institution from all the benefits of regular medical skill, and from all the great insane asylums of the United States. After a six months' trial, the experiment was decided to be a failure, and a regular physician was placed in charge. The homœopath, who is said to have been a person of more than average ability, stated to the board in his defence, that he had administered the homœopathic treatment "*similia similibus curantur*"

to a person with epilepsy, until the patient became so bad that he had a thousand fits in six weeks. Then, by resorting to regular doses of chloroform and ice to the spine, the fits were stopped.—*Phila. Med. Times*.

A NEW VEGETABLE PEPSINE.—Dr. Bouchut, of Paris, created much interest at the recent International Medical Congress by exhibiting a new vegetable pepsine, obtained by himself and Prof. Wurtz from the papaya of Java and South America. This new substance, which is called papayine, possesses all the digestive properties of animal pepsine, making very short work of a piece of beefsteak.

The power which the papaya plant has of making meat tender has long been utilized by the inhabitants of Java, and has heretofore been discussed in medical journals. To Dr. Bouchut, however, belongs the credit of furnishing us with precise knowledge on the subject, and of extracting the active principle.—*Louisville Med. News*.

CARE OF THE INSANE.—The necessity of giving more room to the insane is becoming appreciated in Pennsylvania at least. The private insane asylum at Kellyville has recently been enlarged; and, at the Pennsylvania Hospital for the Insane, another ward is now building, not for the purpose of receiving more patients, but in order to furnish more room for the present occupants.—*Phila. Med. Times*.

BOOKS RECEIVED.

TRAITÉ PRATIQUE ET CLINIQUE DES BLESSURES DU GLOBE DE L'ŒIL. Par le DOCTEUR A. YVERT. Paris: Germer Baillière et Cie. 1880.

PATHOLOGY AND TREATMENT OF VENEREAL DISEASES. By FREEMAN J. BUMSTEAD, M.D., LL.D., etc. In great part rewritten by the Author and by Robert W. Taylor, A.M., M.D. Philadelphia: H. C. Lea. 1879.

COUNSEL TO PARENTS ON THE MORAL EDUCATION OF THEIR CHILDREN. By DR. ELIZABETH BLACKWELL. New York: Brentano. 1879.

CONSUMPTION, AND HOW TO PREVENT IT. By THOMAS J. MAYN. New York: Putnam's Sons. 1879.

HEARING, AND HOW TO KEEP IT. By CHARLES E. BURNETT, M.D. Philadelphia: Lindsay & Blakiston. 1879.

THE THROAT AND THE VOICE. By J. SOLIS COHEN, M.D. American Health Primers. Philadelphia: Lindsay & Blakiston. 1879.

HEALTH PRIMERS. THE SKIN AND ITS TROUBLES. New York: D. Appleton & Co. 1879.

PREVENTION AND CURE OF CHRONIC CONSUMPTION. By DAVID WARR, M.D. New York: Authors' Publishing Co. 1880.

PHYSICIAN'S VISITING LIST FOR 1880. Philadelphia: Lindsay & Blakiston.

A MINISTRY OF HEALTH AND OTHER ADDRESSES. By B. W. RICHARDSON, M.D., F.R.S., etc. New York: D. Appleton & Co. 1879.

FIRST LINES OF THERAPEUTICS, ETC. By ALEXANDER HARVEY, M.A., M.D. Edinburgh: D. Appleton & Co. 1879.

MEMORIAL ORATION IN HONOR OF EPHRAIM McDOWELL, THE FATHER OF OVARIOTOMY. By S. D. GROSS, M.D., LL.D., D.C.L., Oxon. Published by the Kentucky State Society. Louisville, Ky.: J. P. Morton & Co. 1879.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. III. Edited by JOHN C. PETERS, M.D. New York: W. Wood & Co. 1879.

Original Lectures.

CLINICAL LECTURE ON MELANCHOLIA :

BEING THE SECOND OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY, DELIVERED UNDER THE AUSPICES OF THE COMMISSIONERS OF CHARITIES AND CORRECTION, AT THE NEW YORK CITY ASYLUM, WARD'S ISLAND, BY THE MEDICAL SUPERINTENDENT,

A. E. MACDONALD, M.D.,

NEW YORK.

MELANCHOLIA.

GENTLEMEN:—The patients whom I present to you to-day illustrate the second of the four forms in our classification of insanity—the form of melancholia. You will readily perceive that there is a very decided difference between them and those whom we saw at our last meeting—at once in their appearance, their attitude, and their conduct. We have now the asthenic as opposed to the sthenic form of insanity, depression taking the place of excitement. There is none of the liveliness which was before apparent in action and speech, and instead there is depression both of mind and body. In the former class the patient was drawn out of himself, was keenly alive to all that was said and done about him; now he is self-absorbed, his thoughts are turned inward, and he is too much concerned in the contemplation of his own griefs and sufferings to pay much attention to his surroundings. If he regards them at all, it is only because he sees in them fresh dangers or new impositions.

We are accustomed to speak of melancholia, as of mania, as either acute or chronic, sometimes taking account of the arbitrary division based upon the duration of the disease, but oftener, and more properly, having regard to the general type of the symptoms presented. Another division, depending upon the manifestations in the individual patient, recognizes the two forms—melancholia with frenzy and melancholia with stupor—in accordance with the approach toward mania on the one hand, or dementia on the other. It must be remembered that the clean-cut differences in the forms of insanity which we can draw in our descriptions, or illustrate by the selection of typical patients, do not obtain through all clinical cases; that there is a gradual approach of the different forms toward one another; and that we will often find patients so exactly upon the border-line between mania and melancholia with frenzy on the one side, or between dementia and melancholia with stupor on the other, that it is hard to tell just how to class them.

ESSENTIAL DIFFERENCE BETWEEN MELANCHOLIA AND MANIA.

Whatever the particular form which melancholia may assume, the essential difference between it and mania is, as I have said, the element of depression both physical and mental. We have now pallid face, feeble circulation, arrested secretions. The approach of melancholia is slower than is that of mania. There is no sudden and unexpected outburst, but the period of alteration is longer and is more likely to be appreciated by the friends of the patient, or even by himself. In fact, it is by no means uncommon

for the patient to recognize the approach of his malady, to detect the want of reason in his fancies, and to endeavor to argue and steel himself against them, and perhaps for a time with success.

PROMINENT SYMPTOMS.

Sleeplessness is the first prominent symptom in this as in other forms of insanity; disturbance of the emotions follows; and positive delusions soon assert themselves. The patient is unable to apply himself to his former pursuits; he becomes fretful and ill-natured, his natural affections are blunted and soon transformed into actual suspicion and dislike of his family and friends, and into the firm belief that they are conspiring to do him injury, and this feeling is apt to go on to the production of violence either toward himself, or, in what appears to him self-defence, toward others, unless the plain indications in such a case are followed, and he is removed from his customary surroundings and associations.

PHYSICAL CHARACTERISTICS OF MELANCHOLIA.

The first case which I present to you shows plainly, as you see, the physical characteristics of melancholia, and in a very acute form. Indeed, this is but the fifth day of his asylum residence, and his admission followed very closely upon the recognition of his disease. He is much emaciated, feeble in movement and in voice, and his face wears the expression of great mental suffering. He shows you the banner, the carrying of which through the streets and into the churches led to his arrest; and he explains the reason of the inscription upon it. The inscription is, "Freemasons everywhere!—among women and children!—all working cautiously!—Guard children everywhere!" and the explanation is that, ascribing all his own troubles, real and imaginary, to the body named, he considers it his duty to give this warning to others.

SUPPOSED INFLUENCE OF SECRET SOCIETIES UPON THE INSANE.

It is remarkable how frequently the false ideas of the insane are based upon the supposed influence of secret societies upon them. And it is a practical point worth remembering, for it may lead to the detection of evidences of insanity in examinations, where, if the subject is not broached, the patient may not reveal his delusions. There are two or three channels, indeed, in which the delusions of melancholia are apt to run, and in my own examinations I am accustomed to lead the conversation to the subjects of freemasonry, spiritualism, witchcraft, and electricity, with a pretty fair certainty that in connection with one or other of them the insanity will be revealed, if it exists.

You see that the patient does not seek to argue in support of his belief as to the influence that has affected him; nor does he cite any manifestations by which he has detected the influence. He *knows* that the Freemasons are responsible for his troubles, and that is enough for him.

CHRONIC MELANCHOLIA.

The second patient is an older man than the first, and his disease is of longer duration and more chronic in character. He has an equally troubled expression of countenance; but he is better nourished, and is, indeed, in very fair physical health—and by this the chronic condition of his malady and the slight prospect of recovery are indicated, for, when a patient improves in bodily condition without a parallel improvement in mind, it is a very discouraging sign.

You see that the patient's throat presents the cicatrix of an extensive wound, and he tells you that he tried to kill himself just before coming to the asylum. This is the history of many other patients, and I can hardly recall a case of melancholia in which the patient recovered sufficiently to describe his own feelings, where he did not give an account, if not, indeed, of an actual attempt at suicide, at least of a very decided impulse in that direction.

SUICIDAL ATTEMPT.

This is the danger in melancholia as opposed to mania—of injury to the patient himself rather than to others; of the latter there is comparatively little fear. Patients suffering from melancholia with frenzy, do sometimes make attacks upon others, but the motive differs from that which actuates the maniac. In the one case it is fear, in the other anger. The former acts in self-defence, as it were. In endeavoring to escape from the dangers which beset him he attacks those who try to restrain him; or his sufferings become so intense that he turns upon the person whom he believes responsible for them.

But the main danger is that of suicide, and the tendency toward it is so general and so pertinacious, that it cannot be too carefully guarded against. The attempts at self-destruction do not always occur from the same motive. In the present instance the man tells us that he tried to kill himself because he thought others were trying to kill him; and, singularly enough, this most illogical reason is the one oftenest assigned. But in other cases the suicide is attempted or committed because the patient is so disheartened by his imaginary troubles or diseases that he despairs of escape or cure; or it may come from delusion, or from hallucination, as, for instance, where the act is committed in obedience to the voice of the Deity, which the patient imagines that he hears. A peculiarity which it is important to remember is, that there is often not simply a disposition to self-destruction in any possible way that may present itself, but to self-destruction in a definite and particular way. Hence, that a patient takes no advantage of means that are ready at his hand is no proof of his safety, for he may only be waiting to avail himself of some other means upon which he has determined. He may allow razors and pistols to lie in his room unused, and then drown himself at the first opportunity.

SUDDEN DESIRE FOR SELF-DESTRUCTION.

Again, the desire to destroy oneself may be created suddenly by the sight of means by which it may be gratified, just as sane men looking down from a steeple or a bridge feel impelled to throw themselves into the street or the stream below.

We know concerning this patient that there have before been insane members of his family, and that he was himself of intemperate habits, two items of information which we are apt to get regarding most of the patients admitted, at least to this asylum.

As to his present condition, you see that he is restless and apprehensive, and he inquires if he is about to be killed. This is a constant source of dread to him, notwithstanding the fact that he attempted his own life. Everything that happens seems to him to threaten the fate he fears. If a wagon stops at the door, it has come for his body; if a dark cloud crosses the sky, it is an unmistakable omen. This selfishness, if we may call it so, is characteristic of the insane of this class. They take everything that they see, or hear, or read, to themselves. Especially is the latter

the case with the Bible, and the denunciatory passages above all. Under their dictation the right hand is cut off, or the right eye plucked out; and so the danger of self-mutilation is added to that of self-destruction.

Finally this man adds his testimony to that of the other upon the point of the influence of secret societies for his sufferings, for he tells you that the "Grand Order of Accepted Bakers," whatever that august body may be, is punishing him for revealing its pass-word.

MELANCHOLIA OF THE RELIGIOUS TYPE.

CASE III.—The succeeding patient is, as you see, quite grief-stricken, his eyes are full of tears, and he moans very grievously. His reason, as he gives it, is that "everything is going wrong," a formula by which the same question, similarly addressed, is often answered. He tells you that he has lived a bad life, that wicked thoughts keep coming into his mind in spite of himself, that he has committed the unpardonable sin, and that there is no hope for him in this world or the next. He too has the scar upon his throat of a self-inflicted wound, and he blames his wicked and involuntary thoughts for that. His troubles are chiefly about religious matters and the loss of his soul, and he has at times persistently refused food, and necessitated his being fed with the stomach-pump. In his case his only assigned reason for not eating is that "it is no use, no use;" but this refusal of food is common among the insane in whom melancholia is the form assumed, and for a variety of causes. Sometimes it is due to the suicidal intent, sometimes to hallucinations of sight or smell, which lead the patient to believe that blood or excrement has been substituted for his food, or poison added to it. At other times the dwelling of the patient's mind upon scriptural subjects, of which I have spoken, and the desire to imitate our Saviour in the fasting in the wilderness, are accountable for the abstinence. So it is always necessary in the care of cases of melancholia to assure yourself that they eat regularly and sufficiently, or to take measures for their artificial feeding, if they do not.

BODILY SUFFERINGS IMPOSED BY ENEMIES.

CASE IV.—The next patient is of a considerably higher degree of intelligence and education than most of those whom I can present to you. His occupation has been that of a teacher, and he was at one time well known in the city. His insanity was evidently gradually developing long before it compelled him to abandon his work. He has gathered from listening to the other patients the object of his examination, and he parries questions very cleverly, and keeps his delusions skilfully in the background. It is not until reminded of statements that he has made upon former occasions, and told that if he does not reiterate them now, it must be because he has found out that they were incorrect, that he allows himself to be drawn out. Then his delusions come thick and fast, and are upon every conceivable subject, acknowledging only the rule of which I have before spoken—that the person himself is always the active agent in them.

He is the scapegoat for all manner of sins, and has incurred the active enmity of scores of distinguished individuals, and especially of scientific societies. From his early training he naturally seeks to account to himself for this condition of affairs, and he finds the motive in jealousy of his attainments and intellect. So you see mixed with the evidences of fear and despondency in his appearance and speech are

small share of self-satisfaction and pomposity. He tells you that Charles Dickens wrote *Bleak House* to injure him, because he envied his greater literary power; and he points out, very ingeniously, passages which he claims support his view; and he accounts for his detention here by ascribing it to the jealousy of the Central Park Commission of his superior qualifications as a landscape gardener.

But his chief sufferings have been bodily ones, imposed by his various enemies. He has run the gamut of diseases, and has ill enough now to kill a dozen ordinary men. He refuses to shake hands with me or with you, because several diseases have been conveyed to him in that way. That was how he caught pneumonia; while cancer was communicated to him in soap, and his hydrophobia came from the mixture by his enemies of the saliva of a mad dog in his butter. But perhaps their most nefarious act was the secret hiding of spermatozoa in his rice-pudding, whereby he became impregnated and carried a child in his stomach until the seventh month, when these same enemies gave him an abortant in his tea, and he miscarried at stool.

HYPOCHONDRIACAL ELEMENT.

You see what a strong hypochondriacal element runs through this case. It is to be looked for in all such cases. Indeed, the melancholiac is almost of necessity a hypochondriac. The converse is not necessarily true also, though the tendency of hypochondriasis is to end in melancholia. But as long as the transition has not been made the former may be distinguished by his utter hopelessness of cure of his supposed ailments, while the hypochondriac, though he may not acknowledge his hopefulness, shows it plainly enough by the persistency with which he seeks new remedies and new doctors.

PECULIAR DELUSIONS.

Delusions of the class which in this patient take the form of belief that he has had a child in his stomach, are not very uncommon ones. You will find several patients who will tell you that living animals inhabit different organs in their bodies. In one case it is a weasel in the abdomen, in another a rat in the skull, and in a third a doctor who moves from one cavity to another and makes himself peculiarly unpleasant in all. In such cases a feeling of discomfort or pain gives rise to the delusion, and after death the discovery of tumor of the brain or cancer of the intestines accounts for the gnawing of the rat or the weasel.

Not only do the patients at times imagine that animals of one or another kind inhabit the cavities of their bodies, but occasionally they imagine that they are themselves transformed into animals, and they forthwith adopt the habits and carriage of the particular animal into which they believe themselves to have been changed. Other beliefs as to changes in their bodies, in their constituents or component parts, are also found. One patient whom I present to you imagines, and will tell you, that his body is on fire, is gradually being consumed, and that portions of it are already gone. This is being done in order to assist in lighting the world, and at night he will point to the moon and gravely tell you that it is his head, or to the street-lamps and assure you that each gas jet is one of his finger-tips, and he will raise his hand to show you that his fingers are missing, though, of course, such is not the case. Another, also present, imagines that he is dead, and that his body is unpleasant to his companions by reason of

putrefaction. Others, again, think that they have died, or have been killed, but that they are now restored to life; and one thinks that this has happened to him three several times, and will describe to you most minutely the exact circumstances of each murder.

HOMICIDAL MELANCHOLIA.

CASE V.—Here is a patient who committed a homicide a short time since, and who has just been sent here by the court for observation. Of the circumstances of the crime I am not informed as yet, and do not therefore know whether the insanity preceded and led to it, or whether it is the result of remorse for the crime. At any rate, there can be no question that he is insane now, and with the most painful characteristics of melancholia. The recollection of his crime seems to torment him constantly, and he is in perpetual fear that his life, too, is about to be taken. He distrusts his fellow-patients and all who come near him, avoids them, or faces them with his back to the wall, and appears to be at all times anticipating a sudden attack. He has refused food, too, though he does not tell us for what particular reason, and it has been necessary to feed him artificially. He shows the usual loss of natural affection and the usual suspicion of near relatives, refusing to see his wife when she visits him, denying that she is his wife, and accusing her of treachery and misconduct toward him. In every way he suffers as much probably as any of the patients before you. It will not, however, be for long, likely, as he is far advanced in phthisis. This is a common sequel or accompaniment of melancholia, and it is the most usual cause of death in such cases. There are two noticeable peculiarities about it when thus associated: first, that it presents almost no rational or physical signs of its presence, and that its existence is often not determined, nor even suspected, until after death; and, second, that there is a marked alternation in the severity of the mental and the physical disturbances, the mind being comparatively clear and rational when the pulmonary disease is at its worst, and becoming clouded and unsettled again as the bodily powers may temporarily improve.

This man is also a murderer; but in his case there was no suspicion of insanity at the time of the commission of the crime, and he was sentenced to state prison for life, becoming insane only after some years of confinement there. His thoughts, like those of the other man, run, as you see, upon the homicide; but he is more aggressive and noisy, clamoring to be let out, and saying at times that people are trying to murder him, and at others that they forced him to commit his crime in spite of himself.

(The wards of the asylum devoted to the reception of patients suffering from melancholia were then visited, and the peculiarities of different cases exhibited and explained by the superintendent and the physicians of the staff. The same general characteristics as observed in the selected cases shown in the lecture-room were here found, with an infinite variety of detail in individuals. Many were evidently beset with hallucinations of hearing, which caused them great distress. The deprecatory answers returned to these imaginary voices showed that threats and denunciations were the staple of their utterances. Many patients spoke of their sufferings, especially at night from electrical influences operating in their rooms; and one affirmed that his enemies had a telephone under his bed, by which they annoyed him much by shouting at him from the city. Dr. Macdonald stated that this had come to be quite a com-

mon delusion in patients becoming insane since the invention of the instrument.

One patient complained that his lungs had been cut out by means of electricity, that people were able to abstract his thoughts from him by means of suction, and then use them to injure him. He had active hallucinations of sight and hearing, and earnestly appealed to the visitors to aid in his escape.

Another, a former practitioner of medicine in the city, but who has now been in the asylum for many years, spoke of himself as the "Emperor of the World," but had his eye covered with a patch of newspaper, and explained that it was necessary in order to prevent his enemies from dropping poison into it.

Still another believed himself filled with tar and grease, consequent upon drinking rum, and inquired anxiously as to his chances of ridding himself of it. He admitted his insanity and expressed anxiety for its cure, but, as a rule, no such admission could be extracted from other patients, all asserting the absolute truth of their delusions, and the impropriety of their detention.)

Original Communications.

A FATAL CASE OF DISEASE ABOUT BOTH HIP-JOINTS,

IN WHICH THERE WAS AN ABSENCE OF THE USUAL SYMPTOMS OF HIP-JOINT DISEASE—RUPTURE OF THE LIGAMENTUM TERES—DISLOCATION OF THE HEAD OF THE FEMUR ON THE RIGHT SIDE.

By CHARLES T. POORE, M.D.,

SURGEON TO ST. MARY'S FREE HOSPITAL FOR CHILDREN, AND TO CHARITY HOSPITAL, NEW YORK.

On January 21, 1879, I saw with Dr. Gibney, Mary P—, aged five years, whose history was as follows: On December 14, 1878, she was found to have a coated tongue, and complained of considerable hyperæsthesia of both lower limbs. On January 11, 1879, her mother reported that she had been walking lame ever since the last date; that on two occasions she had had severe pain at night; had been irritable in disposition, and losing flesh. Her mother now states that the first symptoms began about six weeks ago. She first noticed a favoring of the *right* side in walking, stiffness in the morning, and that the pain was aggravated by using the limb. The pain, when present, was referred to the inner side of the *right knee*, none elsewhere. No injury or exciting cause known; child always delicate, and surroundings poor. During the two weeks previous to her admission into the hospital there was no marked change in her condition. Motion at both hip-joints was free, smooth, and painless. Temperature normal. The child complained of no pain when quiet; stooping always produced it. She stood in a position somewhat resembling genu valgum. On one examination some pain was complained of about the right hip, but on a subsequent examination it appeared to be perfectly healthy.

On examination, nothing wrong could be detected about either hip-joint; motion free and painless in all directions, except that she complained of some pain in the knee when the *left* thigh was strongly flexed. When the left joint was moved patient

made no complaint, but when the left ilium was pressed inward she cried out from pain. There was no swelling about the right or left hip-joint; no change in the fold of the nates. The *right* hip-joint seemed perfectly healthy. There was pain on pressing the crest of the ilium on the *left* side inward, referred to the *left* knee, or upon attempting to communicate motion to the sacro-iliac joint on that side. There was tenderness, or at least the patient complained, on pressure being made over the sacro-iliac synchondrosis of the left side, and there appeared to be some dulness on percussion over that joint; none on the right. In walking or standing she favored the *left* limb, but there was nothing characteristic in her attitude. The examination seemed to exclude any trouble about the hip-joints.

Patient was admitted into St. Mary's Free Hospital for Children, January 23d, and on careful examination nothing further could be discovered.

February 10th.—Since her admission she has been kept in bed. She has complained of no pain day or night. Motion at the hip-joints is the same as at time of admission. Complains only when the ilia are pushed inward, and then she refers the pain to her left knee. For the past few days she has complained of pain in the left knee when she is moved. She rests, when sitting up, on her left side.

February 22d.—She complained of some pain on motion in the left thigh, which was a little flexed.

February 24th.—Examined with Dr. Gibney. The adductors of left limb were somewhat contracted, as well as the psoas and iliacus. What motion there was at the left hip-joint was smooth and free; that in the *right* appeared normal. There was pain and tenderness over the left sacro-iliac synchondrosis.

March 10th.—Complains of pain at night. Temperature normal.

April 3d.—For a week or so patient has complained of pain in the *right* knee, and the thigh of that side has become flexed. Both thighs were strongly adducted. Suffers much pain when moved. Temperature has been elevated at night, reaching 102°, but normal, or nearly so, in the morning. Patient etherized, and with Dr. Gibney made a careful examination. The contraction of the adductors was easily overcome without the use of any force; in doing this a slight relaxation was felt in the *right* thigh, as though a weak adhesion had given way, but nothing was thought of it. Both limbs were fully extended with but slight tilting of the pelvis. There was no roughness felt in either joint; no swelling about the hip-joints. On examination per rectum no abscess could be discovered; in fact, nothing to account for the pain. After completing the examination it was noticed that the *right* limb was shorter than the left, and on applying slight traction the head of the bone was felt to slip into the acetabulum. No fracture, no crepitus could be detected. It was found that the head of the bone could be easily thrown out of the acetabulum upward and backward. As but slight force had been used, we were at a loss to account for this condition, unless the ligamentum teres had given way and that there was disease of the hip-joint.

Ordered extension to right limb.

April 8th.—Urine was found to be dark, smoky, and albuminous, and on microscopic examination granular casts were found.

April 16th.—There has been nothing special to note, except that patient has gradually failed, and to-day died comatose.

P.M., twenty hours after death. Dr. Gibney present. On inspection nothing abnormal could be seen;

contour of parts about the hip-joints perfectly symmetrical. An incision was made over the *right* joint and the tissue separated from about the capsule. Everything seemed healthy, but on opening the joint it was found to contain thick pus; the ligamentum teres ruptured and softened, allowing the head of the bone to be dislocated upward and backward. The soft parts being separated, the femur was divided just below the trochanter minor. It was discovered that the floor of the acetabulum was diseased in a space about the size of a five-cent nickel piece around the point of the insertion of the ligamentum teres, and partly necrotic. The cartilage on the head of the femur was of a yellowish color, and at the point of insertion of the ligamentum teres showed more evidence of disease. The capsule on its inner surface was thickened and velvety.

Left hip.—The joint was opened in the same manner as the right. There was no pus in the joint-cavity; ligamentum teres perfectly healthy. The cartilage on the head of the femur was white, glistening, and apparently healthy; the acetabulum showed no evidence of disease. The bone was divided just below the trochanter minor; there was found a carious spot about the size of a split pea, but of irregular shape on the upper surface of the head, at a point just below the line of the epiphyseal cartilage; the articular cartilage at the point was destroyed over a small extent; sacro-iliac synchondrosis perfectly healthy.

Abdominal cavity.—Only its lower portion examined. On laying it open, what appeared to be a partially distended bladder came into view, and on pressing upon it thick and offensive pus came from the vagina. On further dissection there was found to be an abscess behind the bladder and between it and the vagina, with a small opening into the latter. It was found that there was a perforation of the right acetabulum; the symphysis pubis was healthy.

On making a longitudinal section through the head and neck of each of the portions of the femur removed, the following was found:

Right.—The bone seemed perfectly healthy.

Left.—There was a point, mentioned above as carious, where there had been a circumscribed osteitis, or rather, osteomyelitis, extending inward and upward from the carious point to a point just up to the epiphyseal cartilage. There were other similar but smaller points of the same inflammatory process scattered throughout the head. The shaft appeared perfectly healthy.

Remarks.—There was evidently an error in diagnosis in this case, yet I do not see how it could have been obviated. There were certainly none of the symptoms usually met in hip-joint disease, except pain in the knee, until February 22d. Pain in the knee is a not unusual symptom in sacro-iliac disease, and the pain caused by forced flexion was attributed to motion communicated to the supposed point of disease, namely, the joint between the sacrum and ilium. I am unable to account for the pain on pressure over the sacro-iliac joint, or the acute pain complained of when the crest of the ilium was pushed inward, as care was always taken not to apply pressure near the hip-joint. I am positive that there was no tilting of the pelvis, nor any limitation of the motion in the hip-joint, until after February 10th. The occurrence of suppurative coxalgia in the right joint cannot be explained on any traumatic theory, nor do I think the disease in the head of the left femur, central osteitis, is susceptible of explanation except on constitution grounds. Coxalgia would probably have

been diagnosed by one who had not watched the case from the beginning; but until the examination, Feb. 22d, I did not think that the joint was affected, and in this opinion Dr. Gibney agreed.

The theory on which the diagnosis of sacro-iliac disease was based was free and painless motion at the hip-joint; pain on pressure over the left sacro-iliac synchondrosis; pain on pressing the left ilium inward. The pain at the knee was explained on the theory that there was an intrapelvic abscess pressing on the anterior crural nerve, and when the right thigh became flexed it was at first considered as a confirmation of the opinion formed of the nature of the disease.

The capsule of the right hip-joint was not distended, but simply contained pus. The partial dislocation of the head of the femur was due to rupture of the ligamentum teres.

It will be noted that in the left femur there was a central osteitis which had involved the external shell of the bone of the head at one point only; that the cartilage was perfectly healthy except over that point, and that the joint was not involved in disease; while in the right joint there was marked disease at the point of insertion of the ligamentum teres into the floor of the acetabulum; that from the condition of the bone at this point it is reasonable to draw the inference that the disease began at this point, and that the joint was involved secondarily, and that it did not originate in the ligamentum teres, and that disease of the pelvis had been of considerable duration.

Looking at the case again, it will be noticed that the disease seemed to be more advanced in the right joint, yet the symptoms of trouble here were much later in showing themselves than on the left side, where the joint itself was not involved in the disease.

A true dislocation of the head of the femur in hip-joint disease we believe to be very rare, and when it does occur the above case explains its cause, at least in those cases in which it happens early in the disease.

I do not think that this case is an example of disease beginning in the ligamentum teres, because the appearance of the floor of the acetabulum denoted a trouble of some duration, while the ligamentum teres was only inflamed, softened, and thrown off, as it were, on account of its attachment to the floor being destroyed by disease. The left side is an example of disease beginning in the head of the bone—central osteitis; and had the patient lived, the joint itself would in all probability have been in time involved secondarily, while that in the right side was a case beginning in the acetabulum, which had gone on until it had involved the joint.

PRIMARY CANCER OF BOTH OVARIES.

SECONDARY CANCER OF MESENTERIC AND BRONCHIAL GLANDS AND RIGHT LUNG.

By C. W. M. BROWN, M.D.,

ELMIRA, N. Y.

The following case, occurring in the practice of Dr. H. S. Chubbuck, of this city, seems of sufficient interest to place on record:

H. S—, colored, aged thirty-five; married; was born in Canada. Her mother died when she was a child, of unknown disease; otherwise family history is good. Has never been sick before present trouble. Is usually stout and fat. Catamenia appeared at eleven; always regular; flow scanty, with little pain. Married at twenty-one; has had six children—one

still-born, five years ago. Labors all easy, except fourth, when child was very large. Last child four years ago. Labor easy, and she made a good recovery. She has been well since, until May, 1878, when she noticed abdomen to be enlarging, and had abnormal craving, and repugnance to certain kinds of food. Her abdomen continued to enlarge, and she "felt movements." In September, 1878, she came to Dr. Chubbuck, thinking she was pregnant. Her abdomen was considerably enlarged, but no physical examination was made.

From this time until the following February she consulted several other physicians, and persistently made efforts to produce abortion upon herself by means of medicine and instruments. But, in spite of all her efforts, the abdomen continued to enlarge steadily. Catamenia continued regular, flow becoming less each time, and finally ceasing in February, 1879. Appetite remained fair; bowels were constipated, to relieve which she had recourse to the usual domestic remedies.

When next seen by Dr. Chubbuck, in February, 1879, her abdomen was very large—so much distended that she could walk with difficulty, compelling her to keep a recumbent position most of the time. There was some oedema of the feet and legs.

Her condition was practically unchanged during the next month.

March 11, 1879, she was seen by Drs. Chubbuck, T. H. and C. L. Squires, and Brown, in consultation, when the following notes were taken:

Patient of small stature; much emaciated. Countenance anxious. Abdomen greatly distended, ovoid in form; somewhat more prominent in left iliac region. Feet and legs swollen, and pit upon pressure. Skin of abdomen also pits upon pressure.

Upon palpation, five centimetres to the right, and a little above the umbilicus, is the most prominent part of a tumor, which seems to float in fluid. Shape irregular; can be moved in any direction, but could not be grasped because of large amount of fluid in abdominal cavity.

The bulk of the tumor was on the right of the median line. Wave of fluctuation felt in all directions. Circumference of abdomen at umbilicus 106 centimetres. Dullness on percussion all over abdomen, except a small space in left hypochondriac region, which was tympanitic. Pressure or percussion over abdomen caused no pain. Auscultation revealed a friction rub over prominent part of tumor. Examination per vaginam showed cervix uteri crowded under pubes; os patulous; anterior cul-de-sac nearly obliterated by hard mass crowding upon it. Posteriorly could be felt a lobulated mass separating vagina from rectum, which seemed to yield upon firm pressure with a crushing sound. No movement could be communicated to abdominal growth from vagina. Small English catheter was passed 6.3 centimetres upward and forward within uterus. Examination by rectum showed a similar hard lobulated mass encroaching upon calibre of rectum. An examination of urine showed it to have a specific gravity of 1015, an acid reaction, and to contain no albumen, casts, or sediment.

The next day the abdomen was aspirated, and a little more than eight litres of clear straw-colored fluid drawn.

Nothing new was discovered after withdrawal of fluid, except that the mass was large, and extended to both sides of abdomen, and was apparently separated into two lobes with a deep sulcus between them. The fluid presented the ordinary chemical and microscopic characteristics of ascitic fluid.

March 15th, she complained much of difficulty of breathing, which compelled her to sit up to breathe. Given .06 of quinia sulphate in whiskey every four hours. Right side of chest in front forward flat upon percussion throughout. Back not examined. Next day a more thorough examination showed flatness on percussion all over right side of chest. Auscultation gave bronchial respiration all over front, becoming faint and distant at base. Respiration faint in upper half of back, and absent below. Movement causes dyspnoea. Pulse, 120; small and weak. Respiration 25, when quiet.

After consultation, thoracentesis was performed and 1.48 litres of clear fluid drawn, and considerable cough with free expectoration of frothy liquid followed. After this she gained somewhat in strength, although abdomen steadily filled again, and the right side was wholly flat upon percussion by the 29th. From this time all symptoms became aggravated; appetite and strength failed; expression more anxious. Abdomen steadily grew in size, and by April 9th was as full as before. She was again aspirated, and 5.5 litres of straw-colored fluid containing flocculi of fibrin.

After performing the test described by Thomas, filtering and passing a stream of carbonic acid gas through the fluid, a precipitate of paralbumen fell. No metalbumen was obtained. Paralbumen is said to be contained only in ovarian fluid, and not in ascitic fluid.

The patient's condition was improved for a few days. But strength soon began to fail; abdomen rapidly filled up, and she sank and died of exhaustion on the 14th.

Autopsy was performed in afternoon of the same day by Drs. C. L. Squire and Brown in presence of Drs. Chubbuck and T. H. Squire.

Body much emaciated; no rigor mortis; abdomen prominent. Upon opening abdominal cavity, intestines were found distended with gas. Peritoneal cavity estimated to contain 1.9 litres of fluid.

Two masses appeared; the larger, on the right side of the abdomen, was floating upon the intestines, to which it was adherent over small extent. These masses were the ovaries. The left was firmly wedged down in the true pelvis, pushing the uterus upward and to the right. It was the mass felt per vaginam. They were irregularly rounded, lobulated, yellowish in appearance, and solid in consistency. They together weighed four kilogrammes; the larger being about three times as heavy as the smaller. Upon section, the surface was yellowish or yellowish white, with numerous small cysts containing clear straw-colored fluid. The cysts were often traversed by small trabeculae. A few spots in both, and especially in the larger, were much softer, and contents were found to be semi-liquid. One spot upon surface of larger mass was umbilicated, and such soft conditions were found underneath it upon section.

Uterus somewhat enlarged, and pressed well forward against pubes.

Kidneys somewhat larger than normal, congested; otherwise healthy. Spleen normal. Liver normal in size, but showed some fatty degeneration. Several of the lumbar glands were enlarged. Upon turning back sternum, a growth was found upon cartilage of fourth rib of right side, with hard cartilaginous feel, and yellowish appearance on section. Intercoastal spaces of right side bulged out; diaphragm pressed downward on that side. Right pleural cavity estimated to contain 3.8 litres of clear serum, which coagulated upon cooling to a jelly-like mass. Right

lung pressed into upper and back part of pleural cavity. The upper and part of the middle lobe crepitated. The remainder solid, yellowish. Parts of it are very hard, cutting like cartilage; one spot in centre seemed to be breaking down—was soft and friable. Bronchial glands enlarged from size of pea to that of English walnut. Left lung and heart normal. Head not opened.

Microscopical examination of ovaries showed them to be composed of connective tissue infiltrated with small nucleated cells, which were in some parts arranged in collections or nests, the so-called "cancer nests." They are therefore cancerous.

The question of diagnosis in this case was one of great interest. The case had been seen by several medical gentlemen of this city before she came finally into the hands of Dr. Chubbuck, and had by most of them been called one of uterine fibroid. After the consultation held, opinions were divided, a part calling it multiple uterine fibroid, regarding the floating mass as a fibroid attached to the uterus by a pedicle, and the part felt per vaginam, to which motions could be communicated, as a separate subperitoneal fibroid. The others called it cancer of ovary, with possibly a fibroid of the uterus. The rapid growth of the tumor while under observation, with the increasing ascites and progressive failure of general condition, pointed strongly toward a cancerous disease, but the question was only settled by post-mortem examination.

The diagnosis of cancer of the ovary is always difficult. Thomas mentions two cases which he diagnosed as cancer of the ovary, which proved to be benign growths.

All recent writers agree that primary cancer of the ovaries is very rare.

Wells only found three cases in his first four hundred ovariectomies, and Peaslee, writing in 1874, thinks that with our present knowledge, these were not cases of cancer. Charles Clay only saw six undoubted cases in five thousand diagnosed cases of female disease. Peaslee only saw two cases in two hundred ovariectomies and autopsies. He agrees with Fehr, that it is the least common of all diseases of the ovary. It usually attacks both ovaries, as in the present case. It does not occur with especial frequency in elderly women, according to Schroeder, but evinces a special predilection for younger subjects, and may even occur before puberty.

Cancer of the ovary occurs in two different forms, according to Schroeder: the first as a diffuse infiltration of the stroma, so that the entire ovary is transformed into a cancerous mass covered with peritonem and retaining very nearly the form of the ovary; or more rarely it happens that one or more cancerous nodules are found in the otherwise healthy tissue, which grow very large, and thus transform the whole ovary into a nodular tumor. The present case evidently belongs to the more common form. Ovarian cancers are usually small. Peaslee says they rarely become larger than an orange. Yet he quotes Lebert as reporting one which weighed eleven pounds, and J. L. Brown one which weighed nineteen pounds.

The disease always severely irritates the peritoneum, and thus always causes ascites, and sometimes limited acute peritonitis. The ascites seems to have appeared rather late in this case. But that there was an inflamed state of the peritoneum was shown not only by the ascites, but by the adhesions to the intestine and lymph in fluid at the second tapping.

A CASE OF NEARLY FATAL HEMORRHAGE FOLLOWING THE SIMPLE OPERATION OF CANTHOPLASTY.

By D. B. SIMMONS, M.D.,

YOKOHAMA, JAPAN.

K—, a female servant, in the employ of one of the foreign residents, presented herself at the outdoor service of the hospital, with ulcerative keratitis.

As an auxiliary means of treatment I performed the ordinarily trivial operation of canthoplasty. Though there was pretty free bleeding at the time, pressure and cold applications caused it to cease entirely in the course of twenty-five or thirty minutes. The patient then started on her way home.

Before she had gone far, however, the bleeding came on afresh. As she was of the impression that free bleeding would have a beneficial effect on the eye, she took no means to stanch it till she felt herself becoming faint, when she called for help, and her master took the matter in hand.

The operation was performed about 10 A. M., and I was called to see her at 8 o'clock the same evening. I found her condition truly alarming, though the bleeding had ceased a short time before I arrived, and did not return. From the appearance of her clothes, the bedding, including the mattress, and numerous towels which were laying about saturated with blood, there was an easy explanation for her all but moribund state. The pulse at the wrist was imperceptible; lips and face without color; hands and feet cold; and the whole body bathed in a cold perspiration. As this state had lasted for over an hour, no means but transfusion, it appeared at the moment, could save her.

Not having the appliances at hand for performing the operation, I made use of the ordinary means for resuscitation, such as hot bottles, brandy by the mouth, rectum, and hypodermically, to which was added later ether. At the end of an hour's hard work the pulse at the wrist returned, though only for a few moments, following a large potion of stimulants.

Toward morning, however, I left her out of danger, and her recovery was complete. I can only explain this extraordinary loss of blood on the theory that I had divided an anomalously disposed artery, or a hemorrhagic diathesis, though I suspected nothing of the kind immediately before or after the operation.

October 10, 1879.

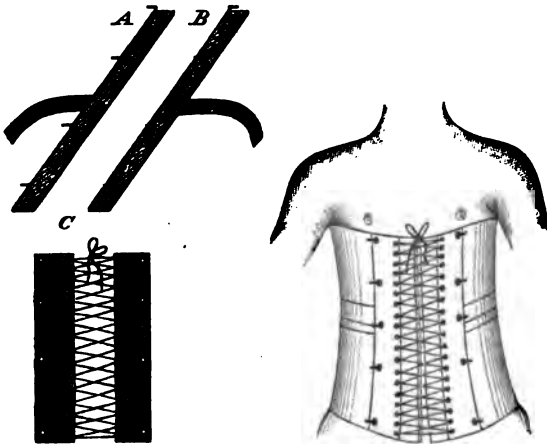
THE PLASTER-OF-PARIS CORSET.

By S. HEMINGWAY, M.D.,

EXAMINING PHYSICIAN TO DEPARTMENT OF CHARITIES AND CORRECTIONS, BELLEVUE HOSPITAL, N. Y.

AMONG several objections to the use of the plaster-of-Paris jacket are: the difficulty of constructing a jacket that can be applied and removed at will; the fact that if a jacket is once taken off, it is useless, unless it is sent to an instrument-maker to be riveted, etc., at quite an outlay; that the jacket will invariably break in front if cut; the inability to preserve cleanliness without destroying the jacket, and the difficulty, at times, of securing a perfect fit. These objectionable reasons against this valuable auxiliary to the treatment of spinal curvatures, etc., are, I think, fully overcome by the use of the plaster corset. To apply the corset, the patient is suspended in the usual manner. A strip of muslin, sufficiently wide to neat-

ly cover the thorax and abdomen, and long enough to extend a little over one-half the length of the jacket above and below, is neatly pinned over the seamless shirt used in applying the jacket. The muslin is subsequently to be turned over the jacket, thus lining both surfaces. After a layer of plaster bandage and plaster have been applied, the strips *A* and *B* are



laid perpendicularly upon the plaster, on a line about two inches within the inner edge of the axillæ, in front. The jacket is now finished in the usual manner; but before completing it, the muslin above and below is to be firmly and neatly drawn over the jacket, overlapping at the centre, and is held in place by a turn or two of the bandage, thus lining the jacket. The jacket is now divided in the median line in front; and, after making apertures in the muslin for the hooks, the canvas strips (*C*) are hooked on, and the corset is laced up with the ordinary corset-lace.

To prevent crumbling of the cut edges of the plaster, when they are dry. I have found the excellent rubber plaster of Seabury & Johnson will as effectively protect the edges as if riveted on, when the plaster is heated and applied. The strips of iron are made of hoop-iron, and the hooks are the ordinary five-eighth brass hooks. Ordinary canvas or leather strips will answer for lacing the corset. The iron strips should have as many hooks as will allow a space of two and a half inches (the width of an ordinary bandage), between each; and they should also have a perforated zinc or tin strip to retain them in position, and to give them support. The proper length of the strips can be estimated with accuracy by measuring the distance from the axilla to the crest of the ilium, care being taken that the upper and lower hooks shall be respectively at the extreme top and bottom of the strip. The cost of the necessary materials for the corset is about twenty-five cents, and can be made by an ordinary mechanic. Where there is a necessity of removing the corset frequently I have used a double $\equiv$, made of perforated tin strips, placed in the back of the corset. Through the courtesy and with the assistance of Dr. V. Mott, I have applied the corset to several of the patients in his orthopedic class in the out-door department of Bellevue Hospital.

One of these patients, a girl, æt. 10 years, had a sharp, angular curvature in the lower dorsal region. She had had the jacket applied previously, but ulceration on the apex of the curvature was not discovered until pus was found staining the shirt, below the jacket. Although in great pain without the

jacket, she could not wear it, owing to this alonging of the integument over the curvature.

I have applied the corset to her, and by occasionally removing it, no trouble has as yet occurred, and she remains free from pain.

What I claim for the plaster corset is this: It costs almost nothing. It can be immediately applied, without the necessity of taking a cast. The increase of weight in the corset is almost *nil*. If too tight it can be loosened, and *vice versa*. It can be removed and applied at pleasure. It is lined within and without. Cleanliness is not interfered with. The iron strips in front prevent its breaking there, which is the first point to give in the jacket; and, the strips behind, when used, give it additional strength and durability.

145 EAST THIRTY-NINTH STREET, N. Y.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

ANEURISM AT THE JUNCTION OF THE TRANSVERSE WITH THE DESCENDING PORTION OF THE ARCH OF THE AORTA.

THE following case exhibited certain points of interest relating to symptomatology, etiology, and treatment of aneurisms: A male patient, æt. 41—a fireman—a habitual drinker, had syphilis sixteen years ago (primary sore and secondary manifestations); in August, 1879, while engaged daily in lifting heavy weights, he began to feel shooting pains in the left side and arm, especially towards night, and finally experienced a sensation as though something suddenly gave way. Following this, he suffered considerably from shortness of breath, had a slight cough, and lost flesh rapidly. The symptoms during the month of September, with the exception of the losing of flesh, remained about the same, and on the 8th of October he felt a severe pain in the left side, which was accompanied by great dyspnoea. Speech was normal; there was no vomiting, and the urine was normal. He was admitted to the hospital October 12th. There was nothing specially noticeable relating to general symptoms. On physical examination of his chest it was found that there was little or no expansion of the left side; flatness on percussion in front and behind; absence of respiratory sounds at the upper part of the left side, feeble below, and bronchial breathing behind. Voice sounds were heard over the entire left side of the chest. The bronchial respiration might be explained in two ways: 1. It might arise from the lung by a tumor, or it might be that a tumor was so close to the chest-walls as to transmit the true tracheal and bronchial sounds.

There were no cardiac murmurs. A prominent pulsating swelling existed just below the left clavicle. It was dull on percussion, tender on touch, did not give thrill or fremitus, and no murmur could be heard over it.

The apex of the heart beat against the chest-wall so distinctly that it seemed almost possible to take the organ in the hand. It apparently moved from right to left with each pulsation of the heart, and was in the sixth intercostal space below and to the left of the nipple. From the strength of the cardiac impulses it was thought that the heart was hypertro-

phied; but probably the displacement of the apex was partially due to the pressure of the tumor downward. There was no aneurismal murmur, yet it was said that that fact did not militate against aneurism; for, although in the majority of cases of aneurism a murmur exists, there are cases in which it cannot be heard. On the other hand, no matter how loud and rough a murmur may be present, it alone is not evidence of aneurism.

The radial pulse upon the left side was weaker than upon the right. There was no change in the pupil on the left side.

There was no transmission of the normal cardiac sounds to the tumor—a symptom strongly in favor of aneurism when present. Before admission to the hospital, the patient had been treated for pleurisy.

Rest, nutritious diet, and the internal use of iodide of potassium, were the essential factors of treatment.

ANEURISM—ABSENCE OF PHYSICAL SIGNS—RUPTURE INTO A PRIMARY BRONCHUS.

In connection with the above, a case was mentioned in which the patient, a man in middle period of life, was supposed to be suffering from asthma, simply because he had recurrent attacks of dyspnea. A careful examination of the chest gave entirely negative results, and the absence of dry râles, so uniformly present in the chest between the paroxysms of asthma, excited the suspicion that the man had an aneurism. A croup-like cough was heard, and the suspicion was increased, but no evidence of aneurism could be found. Some weeks afterward the patient had small hæmoptysis. Careful physical examination was again made, but no marked evidence of aneurism was found. He passed into the hands of a homœopathic practitioner, who diagnosed dyspepsia, and said the patient must have exercise. Autopsy revealed a small aneurism projecting in such a manner as not to give rise to marked physical signs; but it had ruptured into a primary bronchus, and caused almost instant death. The case was interesting because it illustrated the significance of spasm of the glottis.

CIRCUMSCRIBED PLEURISY—UNSUCCESSFUL ASPIRATION—PERFORATION OF LUNG—GOOD PROSPECT OF RECOVERY.

A male patient, æt. 30, came into the hospital, and on physical examination gave evidence of bronchitis, which was followed by the physical signs of lung consolidation, and subsequently by evidence of liquid in a circumscribed space in the right side, just below the scapula. A hypodermic needle was introduced twice and fetid pus was drawn out, and yet pus was not obtained by means of an aspirator. Aspiration was not persevered in, and after a short time the man began to spit up fetid pus freely. The expectoration of this material continued for a few days, then began to subside, and at the date of our visit its fetid character had disappeared, and the patient's general condition was improving quite rapidly. When dullness on percussion occurred, it was thought to be a case of lobular pneumonia. From the fetid character of the expectoration, it was inferred that a small patch of gangrene occurred in the lung and gave rise to circumscribed empyema.

ACUTE EMPYEMA—ASPIRATION—PERFORATION OF THE LUNG, WITH EXPECTORATION OF FETID PUS—CASE PROGRESSING FAVORABLY.

In connection with the above, mention was made of a case in which the physical signs of liquid in the pleural cavity were developed in a middle-aged man

who had been previously in the enjoyment of what he supposed was perfect health. An aspirator-needle was introduced, and between fifty and sixty ounces of fetid pus were withdrawn. He was aspirated the second time; subsequently perforation of the lung occurred, and the patient expectorated an enormous quantity of fetid pus. Expectoration of pus continued for some time; but his appetite returned, he regained strength, and finally the expectoration ceased. About four or six weeks afterward he again expectorated a considerable quantity of the same kind of pus, but his general condition was not affected unfavorably, and he was steadily improving.

CHRONIC DIARRHŒA—CHRONIC CATARRHAL INFLAMMATION OF THE LARGE INTESTINE—INDICATIONS IN TREATMENT.

A male patient, æt. 50, a moderate drinker and a tailor by occupation, had, during the last seven years, been subject to diarrhœa. The discharges had been large, fluid, and had occurred as a rule soon after taking meals; this had been the course, especially during the last week. At the time of admission he was not much emaciated; although at one time previous to his admission his diarrhœa was profuse—as many as twenty-four large watery passages occurring daily—and the passages were excited by anything taken into the stomach, even a drink of water. The fact that the discharges were large excluded the lower portion of the large intestine as the seat of the lesion that gave rise to the diarrhœa; but the fact that the discharges were excited by ingestion of food, led to the conclusion that the lesion was situated in the large rather than in the small intestine; for there is a pretty well-marked sympathy between the colon and the stomach, rather than between the stomach and the small intestine. This is so marked in some cases, that as soon as anything is taken into the stomach, there is a desire to have a passage from the bowels; but it is not, as patients usually suppose, because "the food goes directly through them," but because it acts as an irritant upon the rectum, and at once gives rise to the desire to get rid of whatever there is in it. It was believed that the lesion in this case was simple chronic catarrhal inflammation of the mucous membrane of the upper part of the large intestine, and that it had existed during the past seven years.

If, as was supposed, the lesion was situated in the large intestine, and the irritability of the large intestine was kept up by the presence of food in the stomach, the first indication in treatment was *not* to irritate the stomach, and thereby avoid the exciting cause of the discharges. How could that be accomplished? The simplest plan, it was stated, was to put the patient on a milk diet. In many cases, not in all, the milk does not irritate the stomach. A certain portion of casein will be digested, and the remainder will be digested in the small intestine. Again, as the result of experience, it was known that chronic inflammation of the upper part of the large intestine was frequently best treated by rest, and a diet consisting principally of fat in the form of either cream or cod-liver oil. By placing a patient on a milk diet, both indications were fulfilled. Such had been the treatment in this case, and he at once began to improve. The real difficulty, however, it was said, in treating such cases was to change from the milk to some other diet, when a change became desirable or necessary. An ordinary history is that, while they adhere rigidly to a milk diet, it is cured; but as soon as they return to ordinary food the diarrhœa returns.

That was the effect in this case: improvement on milk diet; return of diarrhoea when ordinary food was substituted for it.

How are they to be permanently cured? If complete control can be had of a patient, this can be accomplished in many cases by introducing the ordinary diet very gradually. First, stop the milk entirely, not continuing it with other articles of food. Then very carefully regulate the quantity and quality of the food which the patient is to take. The first article used to the best advantage is meat—beef or mutton—finely cut and taken in small quantities at a time; and to this, perhaps, a small quantity of toast and tea, or an egg, may be added three times a day. After a few days perhaps rice can be added, and so, adding the most easily digested articles, the patient may be gradually changed from one diet to another. If the diarrhoea returns, the patient should at once be put back on a milk diet. The gradual transfer to the ordinary diet is sometimes aided by certain drugs. For a patient of this age the mineral acids and preparations containing strychnia were said to be the best that can be employed, taken with the meals. The following was recommended:

℞. Tr. nucis vom. gtt. xx.
Acid. nitro-muriatic. dil. gtt. xx.

Mix; dilute well with water, and take three times a day, with meals.

In this way these cases can be not only temporarily, but permanently cured.

Progress of Medical Science.

CEREBRAL THERMOMETRY.—Doctors Maragliano and Seppili, of Reggio-Emilia, Italy, have undertaken some interesting investigations into the cerebral temperatures of the insane and the sane, in the latter confirming in the main the observations of M. Paul Broca, of Paris, and Dr. L. C. Gray, of Brooklyn. Their essay was read before the medical congress at Pisa, Sept. 28, 1878. The conclusions in regard to the insane are as follows: 1, it is exceptional to find the average temperature of the head higher than normal in simple lipomania and dementia; 2, the highest temperature is found in furious mania, 98.40°; then, in decreasing ratio, in lipomania agitata, 98.25°; in progressive paralysis, 97.93°; dementia agitata, 97.61°; imbecility and idiocy, 97.41°; simple mania, 97.34°; simple lipomania, 97.10°; simple dementia, 96.85°; 3, in all mental diseases the occipital lobes are of lower temperature than the others; the temperature of the frontal lobes, which equals that of the parietal in dementia agitata, in idiocy and imbecility, is higher in mania, in simple lipomania and simple dementia; whereas in progressive paralysis and in lipomania agitata the temperature of the parietal lobes is higher than that of the frontal; 4, in all the principal groups of mental diseases the averages of the two sides of the head are almost equal, with the exception of congenital forms, in which the various regions of the right side show a higher figure than the left; 5, the results of cerebral thermometry, compared with what we know of the pathological anatomy of the diseases under consideration, tend to show that in progressive paralysis, mania and the different periods of exacerbation which often manifest themselves in forms of mental depression and debility, there exists a hyperæmic condition of the brain; 6, the general

temperature of the body of the insane, taken in the axilla and rectum, is higher in lipomania agitata and mania furiosa, and generally goes on decreasing in regular order in progressive paralysis, dementia agitata, simple mania, imbecility and idiocy, dementia tranquilla and simple lipomania. These authors found the cerebral temperature of the sane to be higher than did Broca and Gray, their figures for the individual lobes being on the average 3.54° greater, whilst they found the whole head 3.47° warmer. They explain this disparity by the fact that they did their work in June, July, and August, whilst Broca and Gray performed theirs in the winter and early spring. In fact, the Italian investigators made some observations in December, and found the figures very nearly those of Broca and Gray. Thus, they conclude that the disparity is explained by the difference in the surrounding atmosphere. Prof. Maragliano ascertained that thermometers placed on the skull were accurate indices of the temperature of the contents of the skull. He filled a skull with water at different temperatures, leaving the integument and hair on, and he found that the thermometers placed externally followed faithfully the oscillations of temperature of the water within as denoted by thermometers placed therein. He also found that during sleep induced by chloral there is a constant decrease of temperature. In three cases of cerebral embolism, too, he found the temperature decreased.—*Studi di Termometria cerebrale negli alienati.*—*Riv. sperimentale di fisiologia e medicina legale.*

THE OPERATIVE TREATMENT OF GENU-VALGUM.—Dr. Thomas F. Chavasse has prepared a very clear review of this subject, and the following are the operations as practised at the present day: 1. Osteoarthrotomy. 2. Osteotomy. 3. Subcutaneous fibrous section. 4. Forcible straightening. The first is known as Ogston's method, and is done by flexing the knee as fully as possible, then inserting a long tenotomy knife flatly, two or three inches above the tip of the internal condyle, pushing it downward, forward, and outward, until the point is felt in the inter-condyloid space. The cutting edge of the tenotome is then turned downward, and the soft tissues are divided to the bone as its withdrawal is effected. Adams's saw is now inserted and directed along the canal which has been formed, and the inner condyle is sawn through from above downward for about three-quarters of its thickness. By forcibly straightening the leg, the fracture of the partly detached condyle is completed, and the limb brought into proper position by the loose condyle slipping upon the saw surface of the shaft. The after-treatment is simple. Schmitz, of St. Petersburg, and Mr. Reeves, have made modifications of this, though both practically amount to the same. The former makes an open wound, and the latter does what he terms a "subcutaneous extra-articular osteotomy." Reeves uses a chisel. It has been proven, however, that the joint is opened either by the chisel, or by fissure when the limb is straightened. Hence Dr. Chavasse very justly considers this an osteoarthrotomy.

Macewen, of Glasgow, and Chiene, of Edinburgh, lay claim to the operation by osteotomy, i. e., the removal of a wedge-shaped piece of bone from the femur above the line of epiphyseal union. Macewen takes a point half an inch above the upper border of the patella, while the leg is in a state of extension, makes an incision just in front of the tendon of the adductor magnus, reaching the femur at one cut, the length of the wound being about three-

quarters of an inch, and then divides the shaft of the bone for the inner two-thirds of its thickness by three chisels, the largest of which is used at its commencement: thus a wedge-shaped opening is produced without removal of osseous material. The remaining outer third of the shaft of the femur either snaps or bends when the leg is straightened.

Barwell and other operators divide the tibia in addition to the femur, and occasionally the fibula also.

Langenbeck stands first among those advocating subcutaneous fibrous section. He divides the external lateral ligament. Billroth divided the external ligament and the tendon of the biceps, while Reeves has divided, in addition to the above, the fascia lata.

The Lyons School, and especially M. Delore, recommend *forcible straightening*. It is carried out by placing the subject on the back, and after administering an anæsthetic freely, by main force with the hands and knees of the operator, bringing the leg into the normal position; this, if effectual, is accomplished by a series of cracks. Sometimes the strength of the operator is not sufficient, and Rizzoli's osteoclast is recommended. Macewen and Reeves have failed to produce any effect by this *redressement forcé*. English surgeons regard this as a rough unscientific operation, and one not to be recommended.

Dr. Chavasse gives the arguments *pro* and *con* for the different operations. One Ogston operation has resulted fatally.

The chief objection to osteo-arthritis is the involvement of the joint. No operation can be a safe one that involves the articulation. Ogston's, Reeves', and even Chiène's, which professes to be a pure osteotomy, have all been proven to implicate the articulation, and are hence attended with more or less danger.

He sums up by saying that the number of plans that are now advocated is in itself an argument that the correct method is still to be ascertained; and that if the exact pathological causation can be decided upon, there is but little doubt that practical surgery will speedily indicate the precise and proper treatment of the malady in question.—*Birmingham Medical Review*, October, 1879.

A BRIEF RECORD OF TWO THOUSAND TWO HUNDRED CASES OF MIDWIFERY.—The following is a summary of 2,200 consecutive cases of midwifery occurring in the private practice of W. Whalley, M.D., of Bradford, England. There were thirty-nine breech-presentations, of which seventeen infants were still-born. Footling cases occurred seventeen times; ten of these infants were still-born. The arm presented twelve times; five of these infants were still-born. The face presented five times; one infant was still-born. The funis associated with either head or breech-presentation occurred seven times; one infant being still-born. The funis and arm presented in one case, the infant being still-born. The funis and shoulder presented once; the funis, feet, and head once; the funis and foot once; the shoulder once; the foot and head twice; the hand and face once. There were two complete and three partial placental presentations. The placenta was retained or adherent in twenty-seven cases, requiring the introduction of the hand for its removal. Accidental hemorrhage occurred in twelve cases. In three instances the funis was coiled three times around the neck of the child. The long and short forceps were applied in fifty-one instances, in which seven in-

fants were still-born. Craniotomy was resorted to in eleven cases. Podalic version was performed in about twenty-one cases; and the Cæsarian section in one case.

There were twenty-eight cases of twins, of which eleven infants were still-born. In thirteen cases the head presented in both children; in seven cases, in the first child the head presented, and in the second the breech; in four cases the head of the first child and the foot of the second; in one case, the arm of the first child and the head of the second; in another, the breech of the first child and the head of the second; in one case, the head of the first child and the hand of the second; and in another, the hand of the first and the head of the second. In half the number of cases, the second child followed the first at intervals varying from twenty minutes to two hours; in the remainder, the intervals varied from two to six hours. In twelve cases the children were both males; in seven, both females; in five, male and female; and in four, the sexes were not registered.

Rupture of the perineum requiring surgical interference happened in six cases. All were successfully treated with the quilled and interrupted sutures. Spontaneous evolution occurred in three premature cases. Five cases were complicated with convulsions. Deformity of the pelvis was met with in seven cases. Premature labor happened spontaneously twenty-eight times, and was artificially induced five times.

In one patient, seven years had elapsed since her last confinement; in another eight; in two, nine; in one, ten; in one, eleven; in one, twelve; in one, fourteen; and in two, fifteen.

Among the primiparæ, six patients were aged respectively 32, 34, 36, 37, 39, and 45 years.

Of the total number delivered, seven mothers died.

The abnormalities met with in children were the following: Three possessed supernumerary thumbs; in two of these cases the redundant thumb was amputated, and in the third the ligature applied; all did well. One child had webbed fingers; another, hare-lips with cleft palate; the latter was successfully operated upon at the eighth week. One child was born with talipes calcaneus, and was successfully treated by the aid of a boot without division of tendons. There was one case of spina bifida, the tumor being situated in the lumbar region; and, notwithstanding every care was taken to protect it from injury by a properly arranged apparatus, the child only survived a few months, ultimately dying from convulsions. There were twelve or fourteen cases of nævi. Two were cured by vaccination, one with nitric acid; but the ligature was found most successful. One child had malformation of both ears; each pinna or external ear consisted merely of a small flap of loose skin, and there was complete absence of the meatus auditorius externus; the child did not survive many days. In another child there was an absence of a portion of the abdominal parietes in the umbilical region, the deficiency being supplied by a purple-colored membranous structure; the child died before the funis separated. Lastly, there was one acephalous child.

Dr. Whalley has employed the forceps much more frequently of late years than formerly, because patients have learned to appreciate their utility. The long instrument with the pelvic curve was invariably used and found to answer every purpose, whether the head was engaged at the brim of the pelvis, or in the cavity, or at the outlet.—*The British Medical Journal*, September 30, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 22, 1879.

CONCERNING THE LAW AGAINST QUACKERY.

IN the recent report of the Board of Censors of the Medical Society of the County of New York, there are some matters, bearing upon the prosecution of illegal and unqualified practitioners, which are of general interest.

It may be necessary to premise by saying that this State, in common with many others, has a law against quackery. That it is an imperfect one is no surprise to such as have watched the history of medical legislation, and are acquainted with the difficulties attending it.

There are so many influences at work to defeat the best purposes of the framers of such bills, that it is impossible to do anything more than make a show of reform.

There has never yet been a law for the prevention of quackery which has not been inoperative in its most important features. The present law of 1874 is no exception to this rule, as proven by those who have had the opportunities for testing its provisions. So far has it failed of its desired effect, that, in the language of the report, "it might with more propriety have been styled an act for the promotion and protection of quackery."

When the act to which we refer went into force, the Censors, with a zeal worthy of the cause, proceeded to discharge their legal duties by summoning before them for examination all unqualified practitioners, and those practising without a diploma. Such as appeared for examination were, if qualified, granted "certificates of qualification." But it was found that these certificates were not to be considered licenses to practice unless authorized by the Society through its president.

The very fact, however, that any chartered medical societies in this or any other State are authorized to give such licenses, is in itself liable to such abuse

that the Censors recommend its abolition. The report very suggestively says: "As any five physicians may, under the general statutes of the State, associate themselves for medical purposes, and become an incorporated or chartered society, it will be readily perceived that the opportunities for the abuse of the licensing privilege are at present very great, and in the near future may even become still greater. In the whole of Great Britain there are, we believe, only about twenty licensing bodies, while in this State alone there are probably between one hundred and one hundred and fifty. In this county there are at least twelve bodies that habitually exercise this power. Under these circumstances, the Censors believe that it would be better if this and all of the other medical societies in this State were deprived of the power to issue licenses. It would, at all events, tend to diminish the number of avenues by which unqualified persons acquire by law the right which should alone pertain to those who are properly qualified by education."

In regard to the question of bogus diplomas there have been found many obstacles to encounter. There does not seem to be a doubt, if the holder of such a diploma were prosecuted, the court would decide that such a document had been illegally obtained, and would inflict the requisite penalties. The difficulty would be in obtaining the requisite evidence, and even then but one offender against the law could be reached. Little would in reality be accomplished so long as the "diploma mills" were left undisturbed. In the opinion of the Censors, the only effectual way of destroying the abominable traffic would be by appealing to the courts to annul the charter of the offending institution. Then again, the case being brought, as it necessarily would be, in a civil court, the defendant would naturally resist, and the expenses of the prosecution would be greater than the Society would have a right to expect any single one of its members should bear.

After stating the impediments in the way of enforcing the provisions of the act, the report offers a suggestion as to how illegal practitioners may be prosecuted. It goes on to state that the offence being a misdemeanor, it is the duty of the District Attorney to prosecute on the complaint of any citizen or corporation that can furnish him with evidence sufficient in his judgment to insure conviction. In other words, the complaint may be made by any member, in his own name, or the Society can, by a general resolution, direct the officers, as its representatives, to make the complaint in the corporate name of the Society.

After all, the burden of collecting evidence is upon the profession, and the proviso that such evidence shall be sufficient in the judgment of the District Attorney to insure conviction, is, considering the loop-holes in the present law, no easy matter.

THE VENTILATION OF CHURCHES.

Dr. O'SULLIVAN, in an address on State Medicine, delivered at a recent meeting of the Medico-Legal Society, calls attention to the very important subject of defective ventilation in Catholic churches. He says very truly that in such places of worship, which are crowded many hours in the day, the air is foul in the extreme, and saturated with the germs of disease. No sooner is one audience dismissed than another enters, the only means of changing the atmosphere in the meantime being through the open doors. The latter are generally blocked by an incoming and outgoing crowd, so that, practically speaking, there is no ventilation whatever. Add to the dangers of breathing over and over again this bad atmosphere, the chances of propagating disease by the unrestrained admittance of nurses of the sick and convalescents from contagious disease, we have a state of affairs which deserves the gravest consideration. Dr. O'Sullivan very properly urges the clergy to adopt necessary measures for ventilation between services, and also suggests that nurses during their attendance on the sick should absent themselves from mass.

NEW MEDICAL COLLEGES.

It requires very close watching to keep track of all the new medical colleges that are springing up. We have now to announce a fifth medical college for the State of Indiana. This last educational acquisition is located, to speak more definitely, at Indianapolis, making the second medical college in that city.

Although not so stated in the announcement, the college is, it is said, the offspring of personal ambition, and private quarrels chiefly. The *American Practitioner*, in commenting on this new organization, refers very pertinently to the vastly greater need of medical legislation than of medical education, so called. Some laws are needed to prune out a little of the wretched stuff that is demoralizing the medical profession now—laws that will prevent a few men, actuated by selfish ambitions, from pouring thousands of raw and ill-conditioned young men every year into communities that do not need them, and into a profession that they only help to belittle. There is no need of more medical colleges; there is need that there be fewer young graduates, and that the power of conferring licenses be taken from the existing schools and given to the State. This is the general feeling of the profession. Nevertheless, there can be recorded five new medical colleges—and there may be more—that have been announced in the United States this fall. We must conclude that, if a doctor has a chance to stand up and talk before a few gaping students and get "Professor" attached to his name, he will not care what the voice of the profession is. This state of affairs will last, however, until

medical men do something besides grumbling; until they are roused to take the matter into their own hands and demand laws which will protect themselves in the pursuit of their occupation, and in their desire to acquire, honestly, support and reputation.

RESULTS OF SANITARY EFFORTS IN NEW YORK CITY.

The report of the city health board shows that the most gratifying results have attended the efforts to improve the condition of the city's sick children during the past summer months. The means adopted have been sea-side homes, excursions to country towns, barge excursions, and regular medical visits to the tenement-house population. Everything, except the last, has been under the direction of private charitable organizations.

It is shown that, whereas in 1875 the deaths from diarrhoeal diseases, mainly amongst children, were 2,997, and in 1876, 3,060; in 1877, the year in which sanitary measures were more actively enforced, there were only 2,657; in 1878, about 2,057; and in 1879, about 2,084. There has thus been a reduction in this particular death-rate, of nearly a thousand. This means a reduction also of about 25,000 cases of sickness.

The general mortality of the city, however, has not been proportionately diminished; and private charity has done quite as much as public in securing this special result.

Reviews and Notices of Books.

SEEING AND THINKING. By the late WILLIAM KINGDON CLIFFORD, F.R.S. London: Macmillan & Co., 1879. 8vo, pp. 156.

THIS is the eleventh volume of the "Nature Series" of popular scientific works. It consists of four lectures delivered by the author before general audiences. Professor Clifford states that his subject is a sort of "Clapham Junction" of all sciences, and the contents of the book justify the statement. Physics, astronomy, physiology, and psychology are all introduced. We have no space to discuss the book at length; it is, however, an admirable one, and we doubt whether so intricate a subject was ever more simply and clearly exposed. Excellent diagrams and illustrations accompany the text.

A TREATISE ON VOCAL PHYSIOLOGY AND HYGIENE, with especial Reference to the Cultivation and Preservation of the Voice. By GORDON HOLMES, L.R.C.P., Edinburgh. London: J. & A. Churchill, New Burlington Street, 1879. 8vo, pp. 266.

THE author of this book states that his aim in writing it has been to furnish singers and speakers with a concise and complete account of the scientific relations of the voice, physical and medical. A remarkably broad field has certainly been gone over in the compass of his three hundred and seventy pages. The author begins with the origin of language, and from this trips lightly through ages prehistoric, classical and mediæval, bringing us in one chapter to

the subject of modern acoustics. This necessarily involves much conciseness, and it may be questioned whether such a historical review is of much value. Under the head of Sound and Voice, the elementary principles of sound are given in a very satisfactory manner. The larynx is considered, as is usual, to be a reed instrument, and its anatomy and physiology are described. A chapter on the physiological principles of vocal culture, and one upon the hygiene of the voice, complete the work. To the physician this book will furnish some interesting physiological points on the subject of the production of the voice in its different registers. The descriptions are much more clear and satisfactory than in ordinary books of physiology. The subject of stammering is also very well discussed. The practical part of the remainder of the work will only have novelty for the laity, for whom it is intended.

EYESIGHT, AND HOW TO CARE FOR IT. By GEO. C. HARLAN, M.D., Surgeon to Wills's Eye Hospital, etc. Health Primer Series, No. 4. Philadelphia: Lindsay & Blakiston. 12mo, pp. 189.

We may fairly rank this little work as one of the best of the Health Primer Series. It is written in a popular, untechnical style, and conveys much desirable information to the general reader. The chapter on the "Practical Suggestions for the Care of the Eyes" is especially worthy of commendation, characterized as it is by the practical good sense with which it abounds. We heartily commend the enterprise of the publishers in providing for the growing demand for works of this class.

APPLICATION DES SCIENCES À LA MÉDECINE. Par le Dr. EDOUARD FOURNIÉ. Paris, 1878.

We have read this stout octavo volume with much interest. It is more valuable than the title at first suggests. By "la médecine" the author means therapeutics, and the sciences of which he especially traces the application are anatomy and physiology, physics, chemistry, botany, and zoölogy. As the method is historical, and the author aims to cover the whole ground, the work becomes a succinct history of the development of medical science from Hippocrates to last year. Dr. Fournié is so well informed, and so skilful a writer, that he has made a book alike interesting and instructive, particularly in two directions. In the first place, we suppose very few physicians have a clear conception of the steps by which the earliest empirical treatment of disease has developed through twenty-three centuries into the complex science of to-day. This volume gives a clear and sufficiently detailed history of that advance, with a very well-proportioned emphasis on the more important epochs. Whoever the reader may be, we venture to say he will be astonished at the antiquity of some things which he supposed modern, and at the recent introduction of some of his most familiar ideas. The second great utility of the volume is, that it offers a compendious view of all the established resources of the healing art. Medicine is necessarily so much divided into specialties of study and of practice, that no man can have personal familiarity with all the means of exploration, registration, and treatment which so rapidly come into use. It is therefore urgently necessary that from time to time some competent eye survey the whole field and give the profession a full report of what is doing in all departments. Dr. Fournié has done this in a most satisfactory manner, with just enough of fulness and of brevity. The illustrations are numerous and good.

If a critic were necessarily a fault-finder, we might say something of the author's rather *ex cathedra* tone when he passes judgment, of the excellent reasons he generally finds for considering the contributions of Germany either unimportant or not original, and the complacency with which he settles several discussions of contested points by quoting from his own previous works. But these things are occasional, and lie so much aside from the real business of the book, that they rather serve to flavor the dryness of the narrative than to impair its very great value.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 8, 1879.

DR. JOSEPH W. HOWE, VICE-PRESIDENT, IN THE CHAIR.

REMARKABLE PUNCTATE FRACTURE OF SKULL.

DR. R. E. VAN GIESEN, of Brooklyn, N. Y., presented a patient who had sustained a remarkable punctate fracture of the skull, and gave the following history:

Robert S., æt. 45, stout muscular man of good habits, ship-carpenter by trade, fell, June 21, 1879, from a ladder, striking the left side of the head against a galvanized spike four and three-eighths inches long by five-sixteenths of an inch in diameter, which projected from an inch plank three and three-eighths inches. The spike penetrated the whole of its free length flush up to the side of the skull, entering at a point directly opposite the incisura intertragica, half an inch below level of the external canthus, and five-eighths of an inch posterior to external canthus, near the junction of zygomatic process of temporal with the malar bone. The latter was dislocated downward and forward, and was freely movable. The sight of the left eye was lost immediately upon reception of the injury—at least there was no vision upon examination some fifteen minutes after the accident. A probe passed carefully into the wound, after slight hemorrhage was controlled with lumps of ice, passed three inches in nearly a horizontal line; and the little finger one and three-fourth inches, where spicula of bone could be felt; and, slowly withdrawing the same, the malar could be moved by pressing forward and downward. It is probable that the spike, in its onward progress, entered the sphenomaxillary fossa, wounding the optic nerve, and perhaps piercing the antrum of Highmore, though repeated probing at the time of the injury and many times since has failed to enter that cavity. There was no bleeding from the ear or mouth, and but slight bleeding from the nose.

It seemed hardly possible that a wound with such an instrument, penetrating to such a depth in the direction described, could fail of seriously endangering the brain; and the progress of the case was awaited with the utmost anxiety. Cold-water dressings were applied, and a brisk purgative of compound jalap powder.

22d.—There is great chemosis of the left eye; swelling and infiltration of surrounding tissues considerable; free scarifications of conjunctiva; wound gently syringed with a two per cent. solution of carbolic acid in tepid water.

June 30th, ninth day from accident, patient has not

had a single untoward symptom. He has been kept on low diet, and saline cathartics given every second day. Swelling is still very great, and discharge of pus very profuse. A few very small spicula of bone have been discharged.

July 10th.—On syringing, water comes freely through the nose; left side, there is fluctuation near angle of lower jaw.

July 12th.—Counter-opening made at that point; free discharge of pus; water and air can be made to come through nose and the counter-opening.

July 25th.—Fluctuation half an inch under left eye; opening made; all openings communicate with each other, as air can be made to issue from them by holding nose and forcibly blowing.

July 27th.—Discharge of pus from all openings slight. Keep all open by tents, and syringe three times daily as before.

August 5th.—Suppuration almost none; allowed counter-openings to heal; keep main wound open. Patient at work, feeling well.

October 8th.—Original wound nearly closed; probe enters about one and a half inches; water still runs from left nostril on syringing.

The patient was kindly examined by Dr. D. B. St. John Roosa, who reports condition of left eye as follows: Iris healthy, lens and vitreous clear. Fundus: arteries thread-like, veins smaller than normal; the whole constituting white atrophy of the disk.

The right eye is normal.

The condition of malar bone at time of presentation was slightly below level of its fellow, and firmly united.

CANCER OF THE LUNG.

DR. VAN GIESSEN also exhibited portions of the lung and liver of a young man with the following history:

July 1, 1879.—Called to see Geo. S. J., æt. 30. Good family history, free from tubercular or cancerous taint.

His general appearance is that of fair health. Some months ago was confined to his bed with a severe illness, diagnosed by the attending physician as pleurisy and organic disease of the heart. He recovered partially, and has been at work as a clerk until within the past few weeks, but has never felt entirely well. He now complains of severe pain on the left side anteriorly, shooting through to the shoulder-blade, increased at night; and a dry, hacking cough in the morning, entirely devoid of expectoration; the face is usually bluish and swollen or puffed in the morning. There are bluish spots on the left side of chest anteriorly. The left arm is slightly cedematous and painful. The temperature is normal as well as the pulse.

July 2d.—Urine carefully examined, and found normal. The patient came to office, and the chest was carefully examined. The left infra-clavicular region is very dull on percussion. Same region posteriorly much clearer, but less than normal. Left side measures nearly an inch and a half more than the right. There is slight impulse on infra-clavicular left side.

Apex of right lung presents decided dullness, but much less marked than on the left side; change in position of the patient does not affect the area of dullness.

The radial arteries beat with about the same impulse. There is no decided enlargement of glands of neck or axilla; appetite good; no sweating at night. The treatment was directed to the allaying of the pain.

July 5th.—Dr. E. G. JANEWAY saw the case in consultation, and, after a very careful and prolonged examination, pronounced it one of malignant growth of the lung, perhaps an aneurism. At this time the chest was punctured in two places with a hypodermic needle without obtaining any fluid. The impulse under the clavicle was barely perceptible, and a simple device was resorted to to render it apparent. A moderate-sized potato was cut in two; on the convex surface was stuck a long darning-needle, on the remaining extremity was fastened a small strip of paper standing at right angles to the needle. This was placed over the suspected pulsation, and the paper brought in a line parallel with the window-sash; by sighting across the paper to the window the pulsations could be readily seen and measured.

July 7th.—Saw patient again and ordered infus. digitalis, and as he was desirous of a change, recommended him to go to his father's residence at Bay Shore, Long Island. He here passed into the hands of Dr. Vandewater of that place, and I did not see him again until Aug. 30th, when I found the area of dullness very much increased over both lungs. Edema of both right and left arm; more decided impulse infra-clavicular; increase of dullness over right apex. Nearly whole of left lung impervious to air.

The left pupil is dilated and the eyeball protruding.

Sept. 11th.—After several severe attacks of dyspnoea the patient became quiet, and died without pain or suffering at 3 P.M. Dr. Vandewater informed me that the protrusion of the eyeball became very prominent a few days before death, and that blueness of the face and upper extremities was almost constant.

Sept. 14th.—Post-mortem examination, which was kindly made by Dr. Wm. H. Porter. The body is well nourished. On proceeding to open the chest the initial incision was immediately followed by a slight flow of thick, milky juice, and there was found a hard, milky white deposit, near the sterno-clavicular articulation, gluing the muscles to the chest-wall in that region. The bones at this point were very much softened, and broke down easily under pressure between the thumb and finger.

After freeing the lower portion of the costal cartilages, and endeavoring to raise the sternum in the usual manner, we found it adherent for about two-thirds of its length to a new growth, firm and hard in consistence; tracing this latter with the hand, it was found to involve nearly the whole of the left lung, strongly adherent to the chest-walls, and to the pericardium and the lower portion of the thoracic cavity; left side contained about ten ounces of liquid of a deep beer color, and numerous flakes of fibrin of the same color.

After loosening the growth, an incision fully an inch and three-quarters deep was made through the tumor over the heart, before the pericardium was penetrated. The heart was found small and contracted, covered with villous exudation, and the pericardium lined with the same material.

The pericardium contained a small amount of liquid, and was not anywhere adherent to the heart. The pericarditis is evidently of a remote date. The left lung was now entirely removed. There was found but little healthy pulmonary tissue not invaded by the cancerous growth.

Right lung presented the same appearance in a much less degree, the apex being the part chiefly affected. Right pleural cavity contained some twelve ounces of fluid. No adhesions except at the point of cancerous deposit. Liver shows a few nodules of secondary deposit.

Kidneys hyperæmic. Head not examined; the protrusion of eyeball probably due to deposit in cell-tissue of orbit. The physical signs are entirely explained by the pathological appearances; the impulse by nearly two inches of dense solid matter lying directly over the heart. The effusion comparatively small in amount, was probably present when the hypodermic punctures were made, but the level of the fluid was below the point of insertion of the needle.

In conclusion, the doctor wished to refer the specimen to the microscopical committee, which was done accordingly.

DR. LANGE remarked that in a part of Saxony there had been almost an epidemic of cancer of the lung, more than a dozen persons being attacked.

BONY TUMOR OF COCCYX.

DR. POST exhibited a bony and pigmentary mass which had been removed by operation from an unmarried lady, twenty-five years of age, who had bruised the lower part of her spine by a fall two years previously. A small abscess formed, which after a time became apparently healed, but discharged matter at each menstrual period. When Dr. Post saw her there was a bony prominence over the coccyx. This prominence was excised and the sinus laid open, after which the wound healed.

LUPUS OF FACE REMOVED BY EXCISION—TRACHEOTOMY WITHOUT THE TUBE.

DR. POST also presented a drawing of an enormous lupus of the face, upon which he had performed an operation of excision. The patient was a German woman, sixty-one years of age, who was an inmate of the Presbyterian Hospital. She had the disease in the region of the nose for several years. At the time she entered the hospital the whole nasal pyramid had been swept away, and the ulceration had involved the integument at the root of the nose and between the eyes, upon the forehead, and four-fifths of the upper portion of the upper lip. As a precautionary measure against the escape of blood into the trachea, Dr. Post performed tracheotomy without a tube, after the manner proposed by Dr. H. A. Martin, of Boston (Amer. Med. Association Trans., 1878). The patient was fat, had a thick neck, and the subcutaneous vessels were large and numerous. Dr. Post stated in passing that the method of Martin maintained a wider opening than when the tube was used; that there was no irritation from the presence of the foreign body; and lastly, that there was no obstruction from the presence of mucus. From his experience in this case he was led to believe that wearing the tracheal tube after tracheotomy, will be placed in the same category as that of wearing the catheter after urethrotomy. He remembered one case in that connection which had its bearing on the question of wearing the tube after tracheotomy. Many years ago he performed tracheotomy for the temporary relief of malignant disease of the throat. The tube had been worn for a considerable period, and on its removal there was a well-marked ulceration caused by pressure.

To return to the patient with lupus, Dr. Post stated that as soon as he had opened the trachea he crowded a large piece of sponge into the mouth, cutting off all communication with the trachea. It was his intention to use Paquelin's thermo-cautery, but unfortunately the india-rubber bag burst and he was compelled to use the knife. He began by making an incision below the margin of the diseased growth,

thence on either side of the cheek to the inner canthi. The diseased portions on the latter situation were removed by the scissors. After completing the operation, which was a tedious and bloody one, the wound was dressed with shreds of lint and collodion. A little incident occurred a day or two after the operation which was worthy of note. The patient was rather suddenly attacked with emphysema, due to the entrance of air into the subcutaneous cellular tissue of the neck. This was promptly arrested by reopening the wound over the trachea. He stated that should the present operation be successful it was his intention of constructing a new nose from some other part of the body, taking the ring finger for a skeleton basis.

INTRA-MURAL FIBROID OF UTERUS.

He also exhibited a third specimen. This consisted of an intra-mural fibroid of the uterus, weighing twenty-two ounces, removed by operation from a maiden lady, who was sent to him from Delaware County by Dr. McNaughton. About six months since, the patient suffered from retention of urine; and the family physician, examining for the cause of the trouble, discovered a fibroid tumor projecting into the vagina. When Dr. Post saw her, the tumor extended to the vulva and was found to be attached to the posterior wall of the uterus, the posterior lip of the organ being lost in the growth. There was very little hemorrhage present at any time. The uterine probe passed up a distance of four inches beyond the anterior lip of the cervix uteri. She was placed upon ergot for some time with a view of bringing down the growth. She progressed very satisfactorily until a few days before the operation, when she began to droop and show some signs of blood-poisoning. On examination, the tumor was found of a livid complexion, and giving rise to a fetid discharge. It was quite evident decomposition was going on, and that there was a necessity for immediate operation. At the time of the operation the lower extremity of the tumor extended through the labia, filled up the vagina, and was about seven inches in length. The mass which protruded was excised first, and then the stump was drawn down, different portions being excised as they were brought into view, until, finally, the vaginal portion was excised. Then grasping the stump, he endeavored to detach it with the finger and then made use of Thomas's serrated spoon, and succeeded finally in removing the whole mass. No unpleasant symptom followed the operation, and the patient made a rapid recovery.

INTESTINAL CALCULUS—INVAGINATION OF THE BOWEL—STERCORACEOUS VOMITING—RECOVERY.

DR. C. A. LEALE presented an intestinal calculus discharged by a lady 79 years old. It had its origin as a biliary calculus which was passed from the gall-bladder, became lodged at the ileo-cæcum, where from 3½ inches in circumference, it was increased to 4½ inches by concentric layers of stercoraceous matter, and where from inability to be passed it produced an invagination of the bowel, until the presenting portion could be felt within four inches of the anus; digital dilatation gave it an exit from the small into the large intestine, from whence it was removed by bimanual vagino-rectal manipulation, forty-five days after entering the intestinal canal. The patient being relieved by stercoraceous vomiting every three or four days, as during the entire time only one movement of the bowels occurred by return, the return of the invaginated portion by it

jections of carbonic acid water was soon followed by entire freedom from pain, and recovery.

He gave the detailed history of the case as follows:

Mrs. Q—, æt. 79 years, for over thirty years resided in a miasmatic region of Pennsylvania; has had malarial fevers, and for more than the past twenty years has two or three times a year suffered severely from attacks of bilious colic. She has been under my observation for the past seven years, and during that time has, about once every four months, had a violent attack of either bilious or intestinal colic, to be followed by persistent jaundice, which appropriate treatment (generally small doses of podophyllin) would relieve. About the 20th August, while in the country, Mrs. Q— had the most violent attack that she ever experienced, and described her pain as though a portion of her liver had been torn off. The pain lasted nearly an entire day, to be followed by *dysentery*, great tenesmus, and tormina, lasting for the next six weeks. September 1st, Mrs. Q— returned to the city, and in a few days was seen by me. She was then jaundiced, and had complete *obstruction* of the bowels, violent tenesmus, and occasional discharge of about half a drachm of bloody mucus without a trace of fecal matter.

On the 10th of September the accumulation within the intestines caused great distress and violent peristaltic action of the bowels, to control which opium was given in one-grain doses, hoping thereby that at the same time it would produce its opposite effect and relieve constipation. Clysters of warm water had frequently been resorted to, and to relieve tenesmus laudanum added. All efforts to overcome the obstruction by means of the long elastic rectal tube failed, it being impossible to pass it up to the sigmoid flexure. On September 1st the pain could be localized at the ileo-cæcal valve, and it gradually changed along the course of the ascending transverse and descending colon until September 15th, when it was located at the sigmoid flexure. As had occasionally been done, a mild solution of the sulphate of magnesia was given, to, if possible, liquefy the feces and pass the obstruction; but this only increased the peristaltic action, to be followed by distressing nausea and vomiting of the fecal contents of the small intestines. The vomiting of fecal matter was repeated every three or four days, each attack being followed by almost fatal prostration. This condition continued until September 25th, when a manual exploration of the rectum was again made, after again failing to pass the bougie—at this time the pain was localized at the upper part of the rectum. The patient was placed in the position à la vache, and the end of the finger could distinctly feel the presenting *invaginated portion of the bowel*, where the cause of the failure to pass the bougie was made apparent, as the portion presented as a bulging, elongated patulous os, through which even a small No. 8 silver catheter failed to pass, but by bimanual examination, one hand in rectum and one on abdomen, the finger was made to pass through the soft, velvety congested presenting part, and dilatation gradually accomplished, when feces followed the withdrawal of the finger, and fully two quarts of pasty feces were voided; the first and only passage from the small intestines for thirty-six days. In a few hours the obstruction again was apparent, and fecal vomiting recurred at intervals of two or three days.

At no time did the temperature go above 101½° F., and the symptoms of exhaustion gradually became more alarming. The constant desire to have a passage, and the violent tenesmus being relieved by opium, either by mouth or rectum, in small doses, as

one grain at times, produced six or eight hours of sleep. Sept. 26th.—She was much very exhausted and only kept alive on frequently repeated draughts of champagne. Sept. 28th.—Violent fecal vomiting and almost fatal prostration; to facilitate the cleansing of the stomach, warm water was plentifully given until a thorough washing of the stomach had been accomplished.

During the entire time Mrs. Q— was given articles of diet most rapidly to be assimilated, and which would form as little effete matter as possible, and the anti-peristaltic action of the bowels encouraged as often as the strength of the patient would justify, by means of saline cathartics, to be followed by copious draughts of warm water to relieve the stomach of its intensely offensive contents. Each time that the stercoraceous matter passed up into the stomach, the extreme disgust, fecal eructations of gas, and sense of weight gave a desire to vomit; and, although the patient dreaded to vomit, she eagerly drank the warm water to facilitate throwing off the offensive contents of the stomach.

October 1st.—She was seen in consultation by Dr. Austin Flint. No change occurred; the same treatment continued to relieve bowels by stomach and vomiting, and the occasional saline cathartic to soften the contents of the bowels, and opium p. r. n.

At 9½ a.m., October 6th, I received a telegram stating that a sudden change had occurred, and that Mrs. Q— was dying. I was soon at her bedside, and found that she had had a convulsion and intense pain at the sigmoid flexure of the colon. She was then so much exhausted that her pulse for some time was imperceptible; but, by the frequent administration of champagne, she rallied sufficiently on the following day to admit of another rectal exploration, when this hardened mass was felt just protruding through the strictured presenting part. By bimanual, rectal, and vaginal manipulation, it was easily removed, after breaking in two pieces, and the cause of the convulsion was by reflex irritation as it passed through the strictured portion. It is composed of a hardened, dark brown, circular, homogeneous mass, four and one-fourth inches in circumference, and two and one-half inches long, weighing one hundred and seventy grains, having a very strong fecal odor, and enclosing a circular nucleus three and one-half inches in circumference, which was passed from the gall-bladder, the formation around the original nucleus being in concentric layers of stercoraceous matter, each about half a line in thickness, and which, August 20th, became lodged at the ileo-cæcal valve, protruding that portion through the large intestines until the invaginated portion reached within five inches of the anus, when digital dilatation completed its exit from the small intestines, and from which portion of the rectum it was removed by bimanual vagino-rectal manipulation, since which time the aged patient has been free from pain, and a copious injection of carbonic acid water has returned the bowel, and placed her in a condition for a rapid recovery.

Dr. P. C. Cole examined the specimen microscopically, and found it to consist of cholesterine, with a large mass of granular matter colored with biliverdin, the whole mass arranged in concentric layers, and very fragile.

In conclusion, Dr. Leale made the following remarks: In man, the unusual occurrence of intestinal calculi may be concluded when we search in vain for a single illustration in the last medical volume, part ii., of the History of the War, which several of us have

just received, and contains a record of 1,739,135 cases of diarrhoea and dysentery, with 44,558 deaths, besides quotations from all the attainable authorities, making probably the most exhaustive work (a quarto of over 850 folios) ever published; and yet, not a single instance is cited where the cause of the invagination and dysentery is due to the presence of an intestinal calculus, and when, as shown in the history now recorded, these conditions can exist as a provoking cause for both these serious irritations of the intestinal canal, and causing both invagination and weeks of dysenteric discharge below the seat of the obstruction.

Intestinal calculi are not uncommon in the horse, and are a frequent cause of colic and irritation of the bowels. According to Youatt, they are generally found in the cæcum or colon, varying in size from a few grains to several pounds, and shaped in accordance with the nucleus around which they increase; and, in regard to their treatment, Prof. Morton, R. V. C., in his essay on "Calculus Concretions," states that little can be done to procure their expulsion, or even to determine their existence; and that, although some may be expelled, others become so firmly impacted as to resist all medicinal means of withdrawal, and a few have broken their way through the parietes of the rectum, and lodged in the abdominal cavity.

According to Mr. Percival, in his "Elementary Lectures on the Veterinary Art," these calculi may be the cause of fearful destruction of the contiguous soft parts, and consequently of the most intense pain.

A GUMMY TUMOR OF THE PONS AND CRUS, WITH DISSEMINATED, CORTICAL, AND MEDULLA LESIONS OF SPECIFIC NATURE, CAUSING PARALYSIS OF THE RIGHT THIRD NERVE, TRIGEMINAL NEURALGIA, AND EPILEPSY.*

Dr. AMIDON presented a specimen of above, with the following history:

Wiclow, æt. 33; for two years had suffered from amenorrhœa, neuralgia in the upper two branches of both fifth nerves, pigmentation of the skin in neuralgic area, and epileptic attacks with a nasal aura. Later in the disease she developed anorexia, slow and difficult articulation and deglutition, vomiting and constipation. All these symptoms went away under mixed treatment, and patient was discharged cured.

Recurrence, however, occurred in three months with greater severity, and patient died comatose, with all symptoms narrated above.

At the autopsy there were found, besides traces of old syphilitic inflammation in the liver and a parenchymatous nephritis, numerous brain lesions, viz.: yellowish, nodular deposits in each anterior perforated space, and, at the commencement of the fissure of Sylvius, a gummy tumor replacing the right third nerve and invading the pons and crus, and a grayish, translucent deposit on the posterior surface of the medulla oblongata.

The lesions everywhere seemed to be of vascular origin.

The tumor itself, connected with the basilar artery, consisted of small round cells with no intercellular substance. The vessels in the pia mater show marked exudation of new cells into the perivascular spaces and surrounding cortex, and the medulla also shows a dense, small-celled infiltration into the region of the lower sensory root of the fifth nerve.

The interesting points are, whether the deposit in the anterior perforated spaces caused the nasal aura,

and whether the lesion of the lower fifth nucleus and root does not tend to show that that part gives origin to the upper branches of the fifth nerve.

THE PHILADELPHIA ACADEMY OF NATURAL SCIENCES.

MICROSCOPICAL AND BIOLOGICAL SECTION.

Regular Meeting on October 4, 1879.

DR. KENDERDIVE, PRESIDENT, IN THE CHAIR.

(Reported for THE MEDICAL RECORD.)

THE HISTOLOGY OF TUMORS.

DR. CARL SEILER, the lecturer for the evening, spoke at length upon the subject of the "Histology of Tumors." He said that he did not wish to enter too fully or too scientifically into the histology of tumors, as there is so much difference of opinion among students in regard to the morbid processes involved, and because he desired to adapt his remarks to the comprehension of all the audience.

All tumors were formerly divided into sarcomata and carcinomata. They are still so named, but the sarcomata, or *fleshy tumors*, were considered harmless, while the carcinomata, or cancerous, were held to be malignant. The lecturer then said that there were many of the sarcomata as malignant as the carcinomata, the malignancy depending in great measure upon the position of the tumor and the proneness to secondary deposits of tumors in distant organs. To illustrate this point, he called attention to the fact lately brought forward by Dr. S. W. Gross, of Philadelphia, that the round and spindle-celled sarcoma of the long bones are by far the most malignant tumors, and that they usually formed secondary deposits in the lungs, to which the patient succumbs. The same form of tumor in connection with other bones was not to be considered very malignant, and could be removed by an operation with considerable hope of saving life.

Tumors are at the present day divided into: first, those formed of *connective-tissue* elements in various stages of development; and second, those formed of *epithelial* structures. The presence of the so-called *cancer-cell* or *spindle-cell* was formerly regarded as the certain evidence of a malignant growth, and until a period within the last ten years was so taught in our medical schools. This spindle-cell is also found in normal connective tissues, in embryonic tissues, cicatrices, etc.; and although such distinguished histologists as Virchow, Billroth, and Rokitsansky have endeavored to find a special cell indicative of the malignant nature of cancer, they have never succeeded. All are agreed that cancer should not be regarded as anything distinct, and that its cell-elements are either identical with the embryonic or with the fully developed tissues. The simplest form of tumor is found in *granulating tissue*, or what is known as *proud flesh*. When we make a section of such a neoplasm we find that the cells present the simple round appearance analogous to the embryonic connective-tissue cell, and precisely identical with the cells of the round-celled sarcoma. A similarity also exists in the blood-channels of the round-celled sarcoma and of embryonic tissue, they being without walls. By throwing out prolongations, and by contraction of the embryonic-cell-condition, the connective-tissue cells are formed, and in granulating surfaces which advance to the stage of healing, we find the cicatrix made up of or containing the spindle-cells. These two forms of cells

* Service of Dr. W. H. Draper, New York Hospital.

the one as found in simple granulating surfaces as well as in the round-celled sarcoma, the other as found in connective tissue and in the spindle-celled cancer, have the power of infecting the tissues. In this consists the special malignant characteristic. The apparent presence of the round cells in the spindle-celled tumors is owing to the transverse sections of the interlacing spindle-cells, and is always so regarded.

The nature and character of the lipoma or fatty tumor, the osteoma, and various tumors formed by the admixture of these elements, were referred to by the lecturer. The fibroma was described as a tumor which in itself did not produce any dangerous symptoms, but might, indirectly, by its position. Dr. Seiler was of the opinion that the recurrent fibroma of the English surgeons must be looked upon as an encapsulated spindle-celled sarcoma, and the recurrence *in loco* of the tumors must be explained by the presence of tumor-elements in the tissues outside of the capsule, which elements have the power of reproducing the neoplasm.

The second class of tumors, the epithelial, were then considered. By irritation of the epithelial elements, or when the nutritive processes are actively stimulated, we have an undue development of these cells outward, constituting the form of tumor known as the papilloma or wart, the simplest form of epithelial tumor. By the same process, limited by the thick and hardened epidermal layers at a later period of life, the cell-growth extends inward in the direction of the least resistance, and the form of tumor known as the epithelioma results.

The adenomata, or glandular tumors present the appearance of increased glandular elements. The proliferating epithelial cells may, however, fill up and enlarge the acini to such an extent that finally the limiting membrane is broken through, and the cells continue to grow into the adjacent connective tissue, where we find nests of proliferating cells, usually of an elliptical form from being pushed forward. When the connective tissue predominates, or is greatly increased in amount, a hard scirrhus cancer will result. If the connective tissue fails to increase, and the epithelial cells develop to such a degree as to wither or overbalance it, then these cells, also breaking down from pressure, etc., form the soft variety of cancerous tumor. In conclusion, the lecturer said that the chief point which he desired to bring before the gentlemen of the Academy was, that there is no such thing as a cancer-cell, and that the question whether a cell is malignant or not, depends upon the infiltration of the new cell-growth, the position of the cell-growth, secondary deposits, etc., etc.

DR. ALFRED REED gave as a reason why the lungs are a favorite seat of secondary cancerous deposits, that they are formed by the same germinal layer of the embryo as the bones.

In reply, Dr. Seiler said that tumors not originally situated in bones form secondary deposits in the lungs, and, on the other hand, tumors of the bones form secondary deposits in other internal organs, and especially in glandular organs. He further said that it needed but a very few of the tumor elements carried to a distant point by either the circulation of the blood, or, as is more frequently the case, by the lymphatic circulation, in order to start a new point of development. In proof of this the lecturer related some experiments lately performed in Germany, in the course of which a few cartilage cells taken from a cartilaginous tumor were engrafted upon the cornea of a rabbit, and also in the muscular tissue of another

animal of the same species, which formed the starting-point for similar growths to that from which they had been originally taken.

The lecture was profusely illustrated by diagrams, and by a large number of slides showing the different varieties of tumors and their histological details.

THE NEW YORK ACADEMY OF MEDICINE.

OBSTETRIC SECTION.

Stated Meeting, October 30, 1879.

DR. SALVATORE CARO, CHAIRMAN.

THE Section was called to order, and the minutes of the last stated meeting were read by the Secretary, DR. HENRY E. CHAMPTON.

ABSCESS OF THE ABDOMINAL WALLS.

THE CHAIRMAN then read a paper on the above subject, in which he gave the history of an interesting case that involved important points in diagnosis. The patient was aged fifty-eight years, a widow, and the mother of several children. In 1873, September 29th, she, for the first time, occasionally felt a dull pain in the left umbilical region. She suffered from habitual constipation, and had a large, flabby abdomen. At that time there was a nodule about the size of a walnut, painful to the touch, and situated in the substance of the left transversalis muscle, immediately over a portion of the descending colon, which was distended with feces. It could be readily grasped, on account of the relaxed condition of the abdominal walls. The bowels were emptied by cathartic medicine, and the patient was at once relieved. They again became constipated, and the same trouble returned; they were again emptied, but the swelling increased in size, was painful to the touch, and smooth on its surface. That was in February, 1879, when Drs. F. V. White and James L. Little saw the case in consultation. There was slight enlargement of the superficial veins. The tumor was large; it was tympanitic on percussion; there was no distinct sense of fluctuation; there was no marked heat. Dr. Caro inclined to the opinion that it was an abscess. Drs. White and Little thought it was a malignant intra-abdominal growth. All consented to the introduction of a hypodermic needle. A needle was introduced, and passed in its entire length, when the end moved freely as though in a cavity. The piston was then drawn, and the barrel was filled with a purulent fluid, exceedingly offensive. The question then arose, when should the operation for the removal of the pus be performed, and it was decided to cut for it at once. Accordingly an incision, two inches in length, was made six inches below the umbilicus and eight inches from the median line. The dissection was carried carefully down about an inch, when a sac was reached, which was opened, and a large wash-basin full of decomposing and exceedingly fetid pus was evacuated. The sack was washed out with carbolyzed water, and a plug of lint left in the wound. In the evening the dressings were found saturated with pus; they were removed, and about one quart of pus was evacuated. The sac was washed out regularly; the discharge soon began to diminish in quantity, and quickly presented a healthy appearance, and on the 27th of February the woman was regarded as cured.

On March 2d she took cold, and on the 3d she had

a severe chill, followed by fever and pain in the region where the opening was made in evacuating the former abscess. Her pulse was 140, and temperature 103½° F. She coughed, and there was a tendency to vomiting. A poultice was applied to the painful part.

March 4th. — Pulse, 100; temperature, 102° F. Removed the poultice; tore open the old cicatrix, and about one pint of offensive pus was evacuated. The sac was treated as before, and on the 15th the patient was again discharged as cured.

The case was interesting on account of the exceptional lack of symptoms. Early opening of an abscess when the presence of matter can be ascertained was advocated, and opening by means of an incision. Dr. Caro also regarded it as desirable that the injection of the cavity should be made by some instrument by which the fluid could be removed without removing the nozzle of the syringe. He thought the cause of the abscess in this case was the irritation produced by the intestine, distended with hardened feces, rubbing against the abdominal wall. He dwelt at some length on the pathological process of the formation of pus.

Dr. J. LEWIS SMITH remarked, regarding abscess in the abdominal wall in children, that there were two kinds: first, those in which the cause was located in the intestine, and produced by round worms; and second, those in which there was a lodgment of some substance in the appendix vermiformis, and giving rise to abscess. It occurred to him, on account of the great offensiveness and the great quantity of discharge in Dr. Caro's case, that the cause might be within the intestine, and that a piece of feculent matter lying in one of the pouches of the colon had excited irritation and inflammation. He favored the early opening of abscesses seated in the walls of cavities, whether pleuritic or abdominal, and referred to cases in which delay had permitted them to open into the pleural cavity, give rise to empyema, and cause death. The strength of the solution of carbolic acid he usually employed for washing out such cavities was 1 to 40.

Dr. MERRILL remarked that the case which he reported to the Section at a former meeting, and which gave rise to the present paper, was one of pelvic abscess, resulting from cellulitis, and terminating in rupture internally and general peritonitis, and death. He asked regarding the propriety of opening such abscesses early, either through the abdominal wall or through the vagina.

Dr. FORDYCE BARKER replied that his rule was to aspirate a pelvic abscess as soon as he could detect the slightest evidence of fluctuation or even a suspicion of it. In several cases he had drawn out only a drachm or two of serum before the formation of an abscess, and had found that the process of cure had been very much promoted by the procedure. Formerly he opened through the vaginal walls in some cases, but latterly he had found that the aspirator accomplished all that was necessary; and especially was that true regarding pelvic cellulitis occurring during the puerperal period. In the early period of these cases the aspirator was sufficient, but in the latter stages of some of the cases the aspirator might not give a sufficiently free outlet for the fluid. If there were no constitutional symptoms present, use the aspirator at once; no harm came from its use, and he had never had occasion to regret using it.

Dr. J. C. PETERS referred to the occurrence of abscesses in the recti muscles of the abdomen. He was not able to understand how constipation could pro-

duce abscess in the abdominal wall without exciting peritonitis. The peritonitis, however, might be local, and give rise to adhesions. Abscesses in the recti muscles were usually regarded, at first, as cases of peritonitis.

After remarks by Drs. SELL, CHADSEY, and HANKS, the paper, on motion, was referred to the Academy, and the Section then adjourned.

Correspondence.

"STATE MEDICINE."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In reading the RECORD for November 8, 1879, we find an article on State Medicine, by Prof. Henry M. Lyman, in which some statements are made which, if logically carried out to their legitimate conclusions, would, we think, render it practically impossible to prevent the spreading of any epidemic by the action of boards of health, or other local or State organizations.

Among other statements, Prof. Lyman says that "The old doctrine that every man's house is his castle, is as true in matters pertaining to health, as it is in affairs of politics or religion. Government has no more right to compel a man to make his home healthy, than it has to compel him to make his home religious."

The glaring fallacy of the above statement is self-evident, from the fact that the two things mentioned are not comparable with each other.

The State cannot, nor indeed ought not, to interfere to compel a man to make his home religious, simply because scarcely any two men would agree as to what is meant by the term a religious home; hence, such legislation would be practically inoperative and impossible.

If, however, a man in exercising this so-called right to form a home, practises violations of the moral code, the strong arm of the law does interfere, and that very summarily, to protect the community from his evil deeds.

A similar principle underlies all legislation intended for the suppression of disease.

We deny absolutely that any man has either a legal or moral right to make his home unhealthy, simply because the relations of life are so intimately bound together in modern civilization, that he cannot do so without endangering the lives of others.

This principle of law also holds good in all other cases of similar character; if a man, for instance, owns a house in a city, he will not be allowed to burn it down. The law says to him, you have no right to destroy this property, even if it is your own, for the reason that in so doing you endanger the lives and property of those who live adjoining you.

But let us give one or two practical exemplifications of the working of these matters in every-day life.

The writer recently attended a family in which three (3) children were attacked with scarlet fever, from visiting a family who concealed the fact of scarlet fever being present in their household; one of these children very narrowly escaped death, but they finally all recovered.

Another family, exposed in a similar manner through the same culpable suppression of the truth, were not

so fortunate; their only child, as the father expressed it, "was simply murdered."

If Prof. Lyman were in the position of the parent who lost his child in this way, we are inclined to think that he would materially modify his opinions, and might, perhaps, think that it would be well for the State to "compel a man to make his home healthy."

In another part of his paper, Prof. Lyman says that laws for the prevention of disease will be unpopular; this is, to a certain extent, true. We have ourselves seen the officers of the law hooted at, pelted with stones, and even forcibly resisted in the removal of nuisances from crowded localities; but this would scarcely be an argument for their retention.

In spite of all that has been said against legislation on the subject of health, we believe that intelligent citizens, as a class, are willing to submit to reasonable regulations, and even restrictions for the sake of the common good.

Believing as we do that the principles that Prof. Lyman advocates would render farcical all legislation on the subject of health, we have deemed them just subjects of criticism and comment.

ROBERT REYBURN, M.D.

WASHINGTON, D. C.

SUDDEN DEATH IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—We have read with interest Dr. G. E. Goodfellow's letter in your issue of November 15th, in which he narrates the history of a case of thoracentesis, in which great pain was experienced by the patient on three different occasions, at the point of introduction of the needle. On the first occasion "the act of puncture gave him no pain, but a few minutes after the needle was introduced he began to complain of pain in the region of the wound. It was also diffused over that side of the thorax. Moving the needle did not increase it greatly. One gallon of serum was withdrawn," etc. On the second occasion, "from the minute after the needle was inserted he complained of pain, which in a short time became most intense." "About fourteen ounces of fluid had been very slowly taken out, his complaints steadily increasing (italics ours), when a most alarming collapse came on," etc. On a third attempt, one week later, "the cavity as tense as before;" after less than an ounce had been withdrawn, "he complained a little, when an overwhelming . . . attack of pain supervened, and the same collapse came on," etc.

It will be observed in all three of these attempts that the pain did not attend the act of puncturing of the chest-wall, but came on after a certain amount of fluid had been withdrawn. The presumption seems so strong that the "pain of the puncture, *pur et simple*," had no connection whatever with the result. The probabilities seem to be that the needle came in contact with some of the viscera, lung, diaphragm, or pericardium after the withdrawal of a certain amount of fluid, and that the intensity and diffusion of the pain, and the subsequent collapse, are to be thus explained.

Dr. Goodfellow does not state the site of the puncture nor the depth to which the needle was inserted. Which one of the above-mentioned viscera may have been involved, he can judge better than we can. In our own limited experience with the operation, we have not found it easy to avoid touching deeper-lying viscera, and have a very disagreeable and vivid recollection of the sensation communicated to the hand

holding the needle by the grazing of what was probably the lung against its point.

In Dr. Goodfellow's case the patient had been sick four months. If during this four months the lung had been retracted, it is reasonable to suppose that its expansion would be difficult, and the compensatory forcing up of the diaphragm and forcing over of the heart to fill the potential vacuum caused by the withdrawal of the fluid would be very considerable. These considerations are, of course, of little weight as applied to the third attempt, when only about an ounce of fluid was withdrawn. The location and depth of the punctures are the all-important points in determining the plausibility of the explanation of the case which we offer.

Very truly yours,

R. VAN SANTVOORD, M.D.

66 WEST ELEVENTH STREET,
Nov. 15, 1879.

PHARMACOPŒIAL REMEDIES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Among the proprietary, trade-marked, and patented medicines largely used by some, even eminent physicians, are: McMunn's Elixir, Chlorodyne, and Winslow's Soothing Syrup.

The composition and mode of manufacture of the first has long been known (see United States Dispensatory, 13th edition, p. 1470), as the formula was found among the papers of the late pharmacist Mr. Chilton, who is said to have received it from the proprietor. It is merely a watery solution of the extract of opium, also deprived of the odorous and other injurious ingredients of the drug by means of ether. The ether extracts the narcotina and the noxious odorous matter of opium, which are probably the most offensive and least useful constituents. The place of the Elixir is now, and has long been well supplied by the Tinctura opii deodorata of the U. S. P., which Wood and Bache think should be called Infusum opii deodoratum, or some other title expressive of the fact that it is essentially a watery solution of the extract of opium, alcohol being used in no degree as a menstruum, but merely as a preservative.

It is barely possible that loyal physicians may consistently use such proprietary medicines at their first introduction; but they should quickly substitute their own prescriptions therefor, which, doubtless, if aided by a good chemist, will be far more scientific and useful than the patented and advertised article of any mercenary proprietor.

Chlorodyne is still largely prescribed by physicians who should know better than to use a remedy which has all the bad effects of the worst preparations of opium. Squire (see Companion to the British Pharmacopœia) gives the formula for this complex and dangerous medicine, viz.: Chloroform, 4 oz.; ether, 1 oz.; rectified spirit, 4 oz.; molasses, 4 oz.; extract of liquorice, 2½ oz.; muriate of morphia, 8 grs.; oil of peppermint, 16 minims; syrup, 17½ oz.; prussic acid (2 per cent.), 2 oz. To combine them, dissolve the muriate of morphia and oil of peppermint in the rectified spirit; then mix the chloroform and ether with this solution; dissolve the extract of liquorice in the syrup, and add the molasses. Then shake the two solutions together, and add the prussic acid, with some tincture of capsicum.

The imported article is very dear indeed; far out of proportion to its real value and usefulness. Any pill of opium and cannabis indica with capsicum is equally good; the various well-known combinations

of the solutions of morphine with prussic acid or aqua laurocerasi are equally manageable; and the writer from the very first used, instead of the patented English article, with equally good, and even better results, a combination of chloroform, tinct. cannabis indica, solution of morphine, prussic acid, or cherry-laurel water, and syrup of ginger, with or without capsicum.

PHARMACOPŒIA.

MEDICAL ETHICS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the account of the last meeting of the County Medical Society, in your issue of Nov. 15th, it is stated that the Censors reported that the Society had not the legal power to deal with certain breaches of medical ethics. I beg leave to say that this is an error, as the careful perusal of the Censors' report will show. On the contrary, the Society does possess ample legal powers in this direction, conferred by the Statutes of April 10, 1813, and April 7, 1866.

Respectfully yours,

HENRY G. PIFFARD, M.D.,
Secretary of late Board of Censors.

Obituary.

JAMES AITKEN MEIGS, M.D.,

PHILADELPHIA, PA.

PROFESSOR JAMES AITKEN MEIGS, a physician of marked ability, and an eloquent lecturer, whose knowledge of all subjects appertaining to the philosophy and practice of medicine was as comprehensive as it was profound, died suddenly, on Sunday morning last, November 9th, at his residence, No. 1405 Spruce street, Philadelphia, after a brief illness. A little over one week ago he was attacked with a succession of chills, followed by a fever, which continued for nearly seven days, when, through excessive exhaustion, he was compelled to take to bed. On Saturday evening last, his attending physician, Dr. John H. Brinton, called in the assistance of Dr. Da Costa, one of Dr. Meigs's colleagues in the faculty of Jefferson Medical College, and, after an examination and consultation, Dr. Da Costa pronounced the case one of blood-poisoning. After a severe night of fever, it was found on Sunday morning that he was considerably jaundiced. As the morning wore on, there was, however, an apparent improvement in his condition. He took breakfast with a relish, and after he had lain back in his bed a few minutes, he remarked to his father that he "felt so much improved that he thought he would get up soon and dress." Shortly afterwards his breathing became thick and stertorous, and his father, getting alarmed, hurried from the house for the purpose of summoning Dr. Brinton. On reaching his room, they were shocked to find him dead, life having departed, it is believed, almost immediately after his father had left him. Death was caused by embolism of the heart, which was produced by the blood-poisoning.

Prof. Meigs was born in Philadelphia on the 31st day of July, 1829, of English and Scotch ancestry on his father's side, and Scotch and German through his mother. His primary education was imparted by private tutors. In 1843 he entered the Mount Vernon Grammar School, from which he passed to the

Central High School. Graduating from that institution in February, 1848, he at once began the study of medicine in the offices of Drs. F. G. Smith and J. M. Allen. He matriculated in Jefferson Medical College in October of the same year, and in March, 1851, graduated with high honors. He then began practice in Philadelphia, where he since pursued it until his death. For several years he acted as assistant to the Professor of Physiology in the Pennsylvania College. In September, 1854, he was appointed Professor of Climatology and Physiology at the Franklin Institute, holding the position for eight years. In 1855 he was elected physician to the Department of Diseases of the Chest in the Howard Hospital and Infirmary for Incurables, a place which he held for thirteen years.

In 1857 he accepted the chair of Institutes of Medicine in the Philadelphia College of Medicine, and occupied it until April, 1859, when he was transferred to the Professorship of Institutes in the medical department of the Pennsylvania College, previously held by Professor F. G. Smith, for whom the chair was originally created by the trustees of the parent institution at Gettysburg. While in the latter school in its palmy days he delivered two systematic courses of lectures on physiology, illustrating them with an extensive series of vivisections, which attracted much attention at the time, as no sustained systematic attempt to teach physiology experimentally had been made before in either of the four medical schools then existing in Philadelphia. In June, 1868, on the resignation of the late Prof. Robley Dunglison, he was elected by the Board of Trustees of Jefferson Medical College, Professor of the Institutes of Medicine and Medical Jurisprudence. In August of the same year the Board of Managers of the Pennsylvania Hospital chose him, without the usual canvass, one of the physicians of that institution. These two positions he held until his death.

He was a member of the Philadelphia County Medical Society, of which he was elected Recording Secretary in 1857, and a year later Corresponding Secretary, to which office he was twice re-elected, becoming in 1867 one of the Vice-Presidents, and, in 1871, the President. He was also a member of the Franklin Institute; the Academy of Natural Sciences; the College of Physicians; the State Medical Society of Pennsylvania, and the American Medical Association; in the two latter his membership was permanent. He held a membership in the State Historical Society of Wisconsin; the Biological Department of the Academy of Natural Sciences; the American Association for the Advancement of Science; the Medico-legal Society of New York; the Numismatic and Antiquarian Society of Philadelphia; the New York Lyceum of Natural History; the Linnæan Society of the Pennsylvania College at Gettysburg; the Société d'Anthropologie de Paris; the Ethnological and Anthropological Societies of London; the Societas Medicorum Svecarum, of Stockholm; and the International Congress of Prehistoric Archaeology.

He wrote and published many articles of considerable merit, among them one on the physiology of stammering and its treatment by mechanical means. In 1856 he prepared an appendix to the first American edition of Carpenter's work on the microscope. The following year, being chairman of the Standing Committee on Anthropology, he arranged and classified the extensive collection of human crania in the Academy of Natural Sciences, and prepared a systematic catalogue of the collection, which was pub-

lished by the Academy. He also contributed during 1857, to Nott and Gliddon's "Indigenous Races of the Earth," an essay on the cranial characteristics of the races of men, presenting a general survey of human skulls in their ethnical relation; and edited an American edition of Kirke's Manual of Physiology. To the proceedings of the Academy of Natural Sciences, the reports of the Smithsonian Institution, and other like publications, he contributed at various times many original and interesting articles on craniography. He likewise contributed numerous reviews on a great variety of physiological, medical, and scientific subjects to the *Medical Examiner*, the *North American Medico-Chirurgical Review*, and the *American Journal of Medical Sciences*.

He was unmarried, and leaves no relatives alive save his aged father.

JOHN ROBINSON, A.B., M.D., M.R.C.S.

NEW YORK.

JOHN ROBINSON was born in Ireland on the 4th of January, 1809. He was the oldest son of a Methodist minister. By his own exertions he obtained an education, graduating from Trinity College, Dublin, with honor. Immediately afterward he began the study of medicine. He graduated in his profession in 1838, in the city of Dublin, and shortly after visited London, where, on the 27th of July in the same year (1838), he was admitted to membership in the Royal College of Surgeons, England. His diligent attention to his studies while at college, and afterward in the hospitals and dispensaries of Dublin and London, won for him high commendation from his superiors. In 1839 he came to America and settled in this city, and soon enjoyed a large and lucrative practice.

Soon after arriving in New York he formed the acquaintance of the late Dr. John W. Francis, who took him kindly by the hand, and between them there sprang up an intimate friendship, which lasted to the close of Dr. Francis's life. Dr. Robinson once said to the writer, when presenting Dr. Francis: "Here is a man who was my friend when I was sorely in need of one."

In 1845 Dr. Robinson bought an estate (Anna Cora Mowatt's) at Flatbush, Long Island, to which he moved his family in the following year, himself still continuing in the active practice of his profession in New York City during the day, returning to his country home at night.

Dr. Robinson possessed, in a remarkable degree, all the elements of a successful practitioner,—an active mind, quick perception, great personal magnetism, and a remarkable insight of character. He was a hard worker, never shrinking from any demands made upon him in his professional capacity. His was a strong character—proud, independent, positive. To those who knew him but slightly he presented a cold exterior, repelling any approach to familiarity. In his social life, and in the home circle especially, his many virtues shone out with a brilliancy that not even the lapse of time can dim.

He was not a contributor to the medical literature of the day, and his residence out of town prevented his taking an active part in the medical societies. He died at his home in Flatbush, on Friday, Nov. 7th, in the 71st year of his age, of Bright's disease of the kidneys. He married the daughter of a British army officer, who, with nine children, survives him.

ARMY AND NAVY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 9th to November 15th, 1879.

KING, WILLIAM S., Lieut.-Colonel and Surgeon. The extension of his sick leave of absence granted him March 6, 1879, from A. G. O., is further extended six months on account of sickness. S. O. 254, A. G. O., Nov. 8, 1879.

MCPARLIN, T. A. and BILLINGS, J. S., Surgeons. Directed to represent the Medical Dep. of the Army at the meeting of the Amer. Pub. Health Association at Nashville, Tenn., Nov. 18, 1879, and upon its conclusion to return to proper station. S. O. 255, C. S., A. G. O.

TREMAINE, W. S., Capt. and Asst. Surgeon. The leave of absence on surgeon's certificate of disability granted him in S. O. 214, Oct. 27, 1879, from headquarters, Dept. of the Missouri, is extended two months on surgeon's certificate of disability. S. O. 255, A. G. O., Nov. 11, 1879.

MEACHAM, FRANK, Capt. and Asst. Surgeon, Ft. Brown, Texas. Granted leave of absence for one month. S. O. 236, Dept. of Texas, Nov. 8, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. To report in person to Col. Albert G. Brackett, 3d Cavalry, commanding troops at Rawlins, W. T., for duty with his command. S. O. 102, Dept. of the Platte, Nov. 10, 1879.

ELBREY, F. W., Capt. and Surgeon. Relieved from duty in Dept. of the South, and to report in person to the Comdg. General, Dept. of the Missouri, for assignment to duty. S. O. 254, C. S., A. G. O.

BYRNE, C. B., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Comegys, to comply with S. O. 235, C. S., from A. G. O. S. O. 181, C. S., Dept. of Texas.

HAVARD, V., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month from 25th inst., with permission to apply for one month's extension, provided he furnishes satisfactory medical attendance to the command at Fort Johnston, N. C., at his own expense. S. O. 168, Dept. of the South, Nov. 10, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. Assigned, temporarily, to duty as Post Surgeon at Fort Duncan, Tex. S. O. 231, Dept. of Texas, Nov. 8, 1879.

PORTER, J. Y., 1st Lieut. and Asst. Surgeon. Granted leave of absence for five months. S. O. 254, C. S., A. G. O.

RICHARD, CHARLES, 1st Lieut. and Asst. Surgeon. Relieved from duty at Ft. Buford, D. T., and to report to C. O. Ft. Snelling, Minn., for duty at that post. S. O. 124, Dept. of Dakota, Nov. 2, 1879.

List of changes in the Medical Corps of the Navy, during the week ending November 14, 1879.

GIHON, O. L., Medical Director, and B. T. GIBBS, Medical Inspector, ordered as delegates to represent the medical corps of the navy at a meeting of the National Public Health Association at Nashville, Tenn.

PLEURO-PNEUMONIA.—This disease has recently broken out very extensively in North Staffordshire, England. A number of cattle have been killed, and strong measures are being adopted to stop the infection.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 15, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 8, 1879....	0	12	36	1	64	40	1	0
Nov. 15, 1879...	0	15	42	2	84	29	0	0

DR. M. J. DE ROSSET, editor of the *North Carolina Med. Jour.*, has removed to San Antonio, Texas.

"THE WAY IT WAS DONE IN LOUISVILLE."—In our last number, on page 480, a brief article was published with the above heading. Since it appeared, we have seen documentary evidence to prove that the "distinguished New York oculist" had no direct or indirect connection with, or responsibility for, any newspaper or other public notices which appeared concerning him before, during, or after his visit to Louisville.

DIAGNOSIS OF PLEURISY FROM PNEUMONIA.—In the remarks of Dr. Janeway, page 474, it should be stated that there was *not* usually great difficulty in diagnosing pleurisy from pneumonia.

ILLNESS OF DR. KIRKBRIDE.—Thomas S. Kirkbride, M.D., Physician-in-Chief and Superintendent of the Insane Department of the Pennsylvania Hospital, is lying very dangerously ill at his residence on the grounds of the institution in West Philadelphia. The complaint is congestive chills and fever, attended with great nausea and pain in the region of the heart.

THE STAFF OF THE PENNSYLVANIA HOSPITAL.—The name of William Pepper, A.M., M.D., Professor of Clinical Medicine in the Medical Department of the University of Pennsylvania, is very prominently mentioned in connection with the filling of the vacancy in the visiting staff of physicians to the Pennsylvania Hospital, left by the death of Prof. James Aitken Meigs.

THE CHAIR OF PHYSIOLOGY IN JEFFERSON MEDICAL COLLEGE.—The Trustees of Jefferson Medical College, at the suggestion of the faculty, at their meeting on Tuesday evening, November 11th, elected Dr. Henry C. Chapman to fill the chair of physiology during the remainder of the present session, made vacant by the death of Prof. Meigs. The appointment will probably be a permanent one. Dr. Chapman is the son of old Dr. Nathaniel Chapman, who, during the latter part of his life, held the Chair of Physic in the Medical Department of the University of Pennsylvania, and author of a work on "Evolution," and of numerous contributions to the Proceedings of the Philadelphia Academy of Natural Science. For the past year or so he has been demonstrator of physiology in Jefferson College.

THE INTER-STATE MEDICAL SOCIETY met at Mason, Illinois, October 3d; Dr. Leocrone, President; Dr. W. H. Davis, Secretary and Treasurer.

DIPHTHERIA IN BROOKLYN.—There is a prevalence of diphtheria in Brooklyn almost amounting to an epidemic. From sixty to eighty cases are reported each week, with twenty or thirty deaths. This is nearly twice as many as occurred last year at the same time.

MANHATTAN EYE AND EAR HOSPITAL.—The tenth anniversary meeting of the Board of Directors of the Manhattan Eye and Ear Hospital was held on Tuesday, the 11th inst. The Secretary reported that the Hon. E. D. Morgan had recently given to the hospital twenty-five thousand dollars, which would free its building-site on the corner of Forty-first Street and Park Avenue from debt, and place the enterprise on a solid pecuniary foundation. The Medical Board, which is by the charter in the governing body of the hospital, reported that four thousand one hundred and sixty-eight (4,168) cases had been treated during the year, and five hundred and sixty-six (566) operations performed, which, added to the work of the previous nine (9) years, made the grand total of thirty thousand and fifty-three (30,053) cases, and four thousand nine hundred and fifteen (4,915) operations.

PAINLESS LABOR.—Dr. A. M. Smith, of Williams-town, writes: "On the 4th I was called to a case of labor. After waiting a while, expecting a pain, I asked: 'Have you any pain?' The answer was, 'No, only a pressure.' I then thought I should have to wait some time, but soon the 'waters' were discharged. I then made an examination, and found the head presenting at the inferior strait; the expulsive efforts regular and strong, *but not a particle of pain*. And within two hours she was delivered, naturally, of twin boys, one weighing seven, the next five and a half pounds, without the slightest suffering from the time I saw her, to the completion of parturition. She had taken nothing in the nature of a narcotic, nor did I give anything. This is my first case, in a practice of thirty years, of delivery without pain."

THE CUBAN YELLOW FEVER COMMISSION.—The Commission of four appointed by the President to visit Cuba and study yellow fever there, has returned to this country and will proceed to prepare a preliminary report, to be presented to Congress in December. During its stay in Cuba the Commission has had the full assistance of the Spanish Government and the co-operation of the best physicians in Havana. It has obtained the medical records and statistics of the hospitals for the past twenty-five years. The Commission is said to have learned many interesting facts in regard to the disease, especially as to its treatment. The most important points will be given to the public in its preliminary report next December.

MRS. MURRAY, wife of Rev. W. H. H. Murray, is a practising physician.

A NEW HOSPITAL is to be built at Woonsocket, R. I. through the liberality of the late Dr. Ezekiel Fowler. The hospital is to be constructed on the pavilion plan and will be practically free.—*Boat. Med. and Surg. Jour.*

DR. SEXTON'S PRIZE ESSAY.—THE MEDICAL REMEDY of last week, in alluding to the motto of Dr. Sexton's essay on Affections of the Ear arising from Diseases of the Teeth, through a typographical error made it read Ore Audi, instead of the correct motto, "Ore Auri."

BOOKS RECEIVED.

A TEXT-BOOK OF PHYSIOLOGY. By M. FOSTER, M.A., M.D., F.R.S., with illustrations. Third edition. London: Macmillan & Co. 1879.

Original Lectures.

TYPHOID FEVER.

A CLINICAL LECTURE DELIVERED AT THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

By J. M. DA COSTA, M.D.,

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE, AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL SCHOOL.

TYPHOID FEVER COMPLICATED BY ORGANIC HEART-DISEASE.

I SHALL first call your attention to-day to two cases of typhoid fever, which are in my wards—one very illustrative of the typical typhoid-fever relapse, and the other presenting some peculiarities which will amply repay a closer study.

The first patient that I bring before you has been sick since the 24th of September—that is as nearly as we can make out. There was diarrhoea at first, and this was soon associated with fever and with a temperature of $104\frac{1}{2}^{\circ}$. On the day of his admission his pulse was not above 88. It is a very remarkable fact that the pulse should remain so low. Looking over the pulse chart from the day of admission, which was probably the fifth day after the inception of the disease, we find the pulse marked down at 86, 80, 60, 66, 70, and so on. During all this time the temperature ran high; that is, it was not what would be a high temperature for fever, but high as compared with the normal. The evening average was about 102° , with a daily morning fall of from one to two degrees. Here at once we strike the fact that the patient's pulse did not correspond with his temperature. Temperature and pulse usually go hand in hand. In this case, on the contrary, there has been a marked disproportion between the fever and the state of the pulse from the very beginning. Did this dissimilarity apply in this case to the frequency of the pulse alone, or to its character also? Only to the former; for the pulse, though slow, was a very compressible one, and in that respect was a typical fever pulse.

I will not say much to you regarding the general symptoms of the case. There was the usual eruption, the spleen was enlarged, and diarrhoea continued moderately active. The temperature to-day is $97\frac{1}{4}^{\circ}$, and it has been as low as that three or four times within the past week. This temperature is lower than the normal; but such a state of affairs is not unusual in convalescence from typhoid fever. His tongue is moist and slightly coated. What about the other viscera? Do they afford us any explanation with regard to the state of the pulse?

Let us make a careful examination. In listening to the heart I can distinguish a most marked systolic murmur, which is harsh, sharp, well defined toward the apex and less marked toward the right base. This systolic murmur is associated with a sharp second sound. There is very evidently something wrong with the heart. It is a nice case for diagnosis.

Are the physical conditions of the heart a result of the fever process, or are they entirely independent of it?

This brings us to a consideration of the state of the heart in fevers. In all low fevers, but preëminently in typhoid fever, there is a cardiac murmur present which is largely due to the condition of the blood, aided, no doubt, by the flabby state of the ventricles. Are we dealing with this kind of cardiac murmur in

this case, or has there been preëxisting and organic disease? The cardiac murmur in this instance does not, I am quite confident, belong to the fever process. In the first place, it was discovered upon the very day of admission—*i. e.*, it was present in the first week of typhoid fever. In the next place, it was and is harsh, rough, and has a most marked second sound associated with it; and, thirdly, it is very strictly limited to the apex. This is not the history, or sequence, of the cardiac murmur of typhoid fever. It comes on late in the course of the disease; it is not rough, and not associated with a distinct second basis sound; and it is not so strictly limited to the apex. It is very plain that the state of the heart has nothing to do with the fever process here.

But the strongest proof which we can derive from the physical signs is that obtained by percussion. The percussion dulness in the cardiac region is very much increased in extent. This proves that the heart itself has increased in size, and I am quite sure that this increase in the size of the heart has not been due to the fever process. This point of diagnosis has a very important bearing upon our prognosis and treatment.

To come back to where we started—what have we now to state regarding the cause of the comparatively low pulse? Is it to be explained by the original mitral difficulty antedating the typhoid fever? I think that it is to a great extent to be so explained. I have frequently found organic heart-disease complicating typhoid fever. In these cases the frequency of the heart's action does not increase in proportion to the height of the fever, but the pulse often remains stationary. I have even known of the coëxistence of fatty heart in these cases without any rise in the rapidity of the circulation. This is not an absolute rule, but it is the one which general experience has taught me to follow, *i. e.*, the pulse in such cases is apt to remain stationary, or, at least, not to show any great variation.

This persistence of the normal pulse throughout the typhoid fever process makes me always suspect disease of the heart, and careful examination of the case has generally proven my fears to be but too true.

These points, which we have just been discussing, have a very direct bearing upon the question of prognosis. If the murmur be merely due to the altered state of the blood, we always hope to remove it entirely by means of iron and a general tonic treatment; but this man will recover from the typhoid fever with the cardiac malady still in force, for the heart-disease in his case antedated the typhoid fever.

Thus you see that we have discovered an accidental, but very interesting condition, which has a very important bearing upon our prognosis and treatment.

RELAPSES IN TYPHOID FEVER.

This case presents a very characteristic typhoid-fever relapse, and will therefore serve us as a very excellent illustration of the true second attack of the disease.

The patient is a German, and, owing to his very imperfect knowledge of English, we have experienced considerable difficulty in obtaining any accurate history from him. What we do know is, that he walked into the hospital on October 3d, in a state of high fever and nervousness, bordering on delirium. He was a very ill man when we first saw him, as was conclusively proven both by his mental condition and by his temperature, which was 104° . His pulse upon admission marked one hundred and twenty beats to the minute; his tongue was very tremulous; his ab-

domen was tympanitic, and there were a few rose-colored spots apparent. In addition to these unmistakable signs of the presence of typhoid fever, we were able to distinguish a soft systolic, basic murmur. This last fact would have been enough to prove that the fever must have existed already for some time, had all other reliable signs been wanting. The extent of the blood-changes seemed to indicate that the case had progressed well into the second week when we first saw the patient.

The man remained in the wards, experiencing all the ups and downs usual to the disease. There was some epistaxis, and the fever frequently raised the evening temperature to 103°. The case was treated in the usual manner—mainly by a well-regulated diet. As medicine, five drops of the official nitro-muriatic acid, well diluted, were given every three hours, and occasionally a few drops of turpentine were administered, as the state of the tongue and the tympanitis demanded. With this care the case progressed rapidly toward complete recovery, so that on the 18th of October the morning temperature was 99°, and it only rose to 100° in the evening. On the morning of October 20th it was still lower, the record noting 97½°, with an evening exacerbation on that day of only one-half a degree (98°). On October 21st, the morning temperature was again 97½°. The man's mind was clear, the delirium had completely left him, and his appetite had returned to its usual vigor, when suddenly, on the evening of the 21st, the temperature shot up to 101°. Next morning it fell again; but on the next evening it had risen nearly to 102°, and from that time on remained a fever temperature with marked morning remissions and evening exacerbations. Simultaneously there appeared again a typical typhoid-fever rash, which is only now leaving the patient. (You notice that the spots of rash disappear entirely upon pressure, but appear again plainly the moment the pressure is withdrawn.) This state of things has gone on until the second of the present month, since which date the temperature has again been falling, until to-day it has again nearly reached the normal. He now has only one large liquid stool daily.

The resident physician tells me that during the first period of convalescence, that is, during the period between the first attack and the relapse, the stools were almost normal; but the moment the relapse made itself felt, the diarrhoea again appeared in force. The resident thinks that the eruption had at no time entirely disappeared, but that there was certainly a marked increase in its amount when the symptoms of the relapse appeared.

In conclusion, I would merely point out to you that the man is well into his second convalescence; that his tongue is again moist; that his pulse is 76, and his temperature again down to 97½°. This all proves that the second attack also is over.

Those of you who are near enough can see this characteristic ridge on his nails, which is the only remaining sign of the first attack of fever. As regards the cardiac blood-murmur, it still exists, but is very soft, and most distinct over the left base.

The case presents some peculiarities. I do not know that they are so much peculiarities of this relapse as of all relapses, more or less. And, in the first place, you have all, I am sure, noticed the sudden shooting up of the fever process with the inception of the relapse. And then the other curious fact—that the temperature only remained high for a day or so, and then zigzagged with most marked morning remissions and evening exacerbations. You will gen-

erally find this rule to hold good in all relapses. There is a sudden bound up of temperature. It does not attain its height gradually, as in the first attack. It remains high but for a short time, and then the morning and evening changes become most marked. These morning remissions and evening exacerbations are much more marked in the relapse than in the original attack.

I knew that a relapse had taken place the moment my eye caught these zigzag lines on the temperature chart.

As characteristic of the relapse I would also have you notice the immediate reappearance of, or rather increase in the amount of both diarrhoea and eruption. There was also a recurrence of some of the nervous symptoms; not of the delirium, indeed, but of the excessive tremulousness. It is fair for me to guess that the spleen has remained enlarged throughout the course of the disease from the first. It may have gone down in size during the first convalescence, but it certainly swelled up again with the relapse. A very astute clinical observer says that the spleen never decreases in size while the fever process remains; while it may mark the beginning of a relapse by swelling up again, it has never entirely gone down.

A relapse of typhoid fever rarely lasts as long as the first attack. In this case it has been nearly three weeks since the relapse was heralded in, but as a general thing it does not last for more than ten days.

As regards the eruption in a relapse of typhoid fever—until I had made a particular study of this point myself, I did not know that it was the rule for the eruption to appear almost coincidently with the first symptoms of the relapse. In the original attack, and, indeed, generally, it does not show itself until the seventh or ninth day. The eruption of the first attack and of the relapse does not differ in character. Each relapse of typhoid fever is accompanied by an eruption, and this eruption usually lasts as long as the relapse itself. The eruption is not always in strict proportion to the intensity of the attack—i. e., the intensity of the enteric symptoms. It is generally, however, most marked where the enteric symptoms are most marked.

A relapse in the course of typhoid fever may occur after the patient is to all intents and purposes entirely well of the disease.

There are many other points to which I might call your attention, such as the condition of the nails, tongue, etc., in a relapse, but I must hurry on. The case has been a very typical one.

In the majority of instances of relapse in this disease the prognosis is not bad, the mortality being but very slight if the proper treatment is employed.

The same treatment is employed in a relapse as in the first attack. The patient is put again upon the use of the mineral acids and the turpentine, eight grains of quinia are given daily, and the body is sponged all over every night and morning with cold water. The diarrhoea is limited by opiates and astringents.

What treatment shall we pursue during the rest of the few remaining days of convalescence? The patient has only one movement now a day—we will suspend the turpentine. In place of it I will order the tincture of the chloride of iron in twenty-drop doses, with five drops of muriatic acid, four times daily. I will still keep him upon a liquid diet. He has been taking f. ʒ iv. of wine regularly every day during the past week; this may be continued. He may have a few stewed oysters, or some milk toast, but no solid food. The quinia will be continued for a few more days.

Original Communications.

THE SPHYGMOGRAPHIC INDICATIONS
IN ANEURISM.

By A. T. KEYT, M.D.,

CINCINNATI, OHIO.

(Read before the Cincinnati Academy of Medicine, Nov. 3, 1879.)

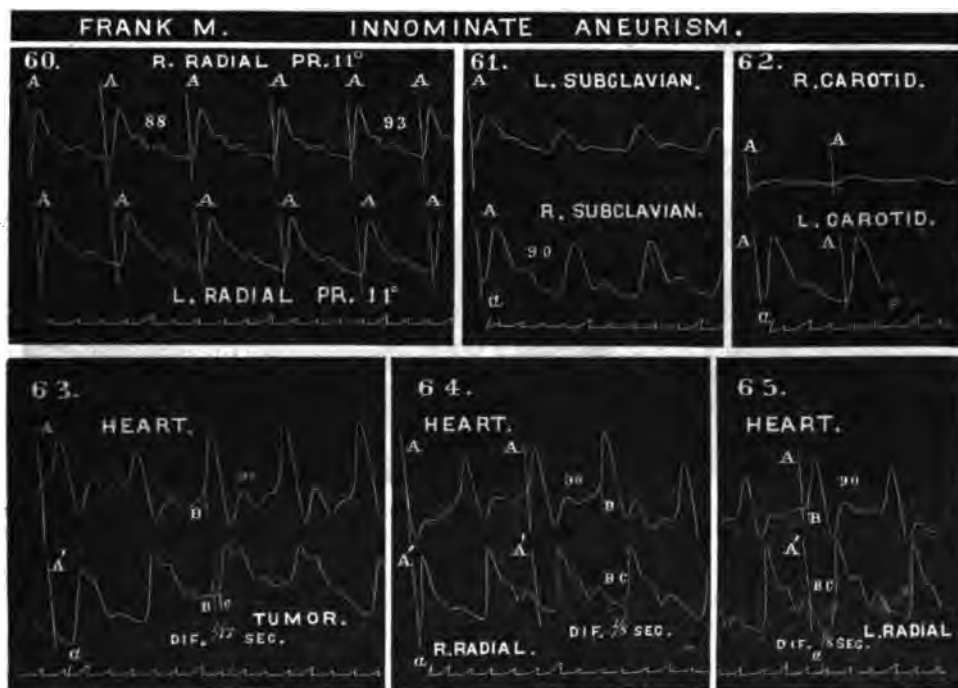
ON the authority of a few distinguished names, supported, however, by a comparatively small number of experimental observations, it is currently taught that the pulsations below an aneurism afford two important indications of its presence: first, a characteristic form of pulse—a typical deformation; second, an abnormal delay of the pulse. If these changes exist, the former can be demonstrated with the simple sphygmograph, and the latter with a very perfect differential sphygmograph; and if the question be thus simple and settled, as stated, we have indeed arrived through the graphic method at a wonderful and gratifying precision in the diagnosis of aneurism. The object of this paper is to present some additional facts, and inquire anew as to the real value of these indications.

rism by a tracing with slanting up-stroke, rounded top, and gradual descent without mark of secondary waves.

Dr. Mahomed* gives sphygmographic tracings of several cases of aneurism in which this imperfection is well shown. Of three cases of innominate aneurism verified post-mortem, one shows marked distortion of the right radial as compared with the left, while two present the right radial correct in form and uniform with the left. From his cases, Dr. Mahomed infers that in pure innominate aneurism the right radial pulse presents the "aneurismal trace," while in aneurism of the innominate continuous with dilatation of the aorta, the right radial is little, if any, modified, and right and left correspond.

As regards delay of the pulse below an aneurism, François Franck† has contributed important observations. By means of an apparatus devised by himself, he showed, in a case of innominate aneurism, that the right radial pulse was delayed on the heart $\frac{1}{10}$ sec., and the left radial $\frac{1}{10}$ second; and in another case the right and left radial pulses were delayed on the pulsation of the tumor, respectively .21 and .14 second. Thus, François Franck esteems delay of the pulse below an aneurism as constant and of the highest diagnostic value.

By means of my apparatus, consisting of two



Explanation of the cuts.—The cuts are exact reproductions from the original glasses, effected by direct photography and skilful cutting. A, A' are lines made by the tracers, respectively, with the glass at rest. B parallel to A cuts the basal point of the proximal trace, and C parallel to A' cuts the basal point of the distal trace. B of the distal trace, also parallel to A', is the same distance from the latter as B is from A of the proximal trace. The space between B and C indicates the time-difference between the pulsations, and its exact value is found by measurement on the corresponding part of the chronogram below. The latter indicates fifths of seconds.

As regards deformation of the pulse below an aneurism, Marey* remarks: "When an aneurism exists on the tract of an artery, one observes below the tumor an important modification of the pulse; the quickness gives place to an extreme slowness, and often the touch is incapable of feeling this pulsation, because of the slowness with which the finger is raised;" and represents the pulse below an aneu-

uniform transmission sphygmographs and a chronograph, all writing on the same glass slide, I have studied the pulsations in three cases of aneurism in which the conditions were verified after death. These cases, with their graphic showings, are here produced:

* Medical Times and Gazette, vol. II., p. 141. 1873.

† London Medical Record, March 15, 1873; Amer. Jour. Med. Sci., July, 1873, p. 253; La Méthode Graphique, p. 536.

CASE I. Aneurism of the Innominate.—For the opportunity of observing this case, I am indebted to Dr. Jos. Ransohoff, who also kindly furnished me the notes of the post-mortem. Frank M—, aged 48 years, presents a prominent tumor at the site of the right sterno-clavicular articulation, which manifests pulsation, thrill, and a systolic murmur. Second sound of the heart clear and greatly intensified. Respiration much embarrassed by pressure of the tumor against the trachea. The graphic records were taken January 1, 1879. A few days subsequently the man died, and the autopsy revealed a large globular aneurism of the innominate artery, about three inches in diameter. The cavity contained fibrinous coagula, which encroached upon and obstructed the carotid orifice, but left the subclavian orifice free. The aneurism communicated with the aorta through an opening, only somewhat larger than the normal innominate lumen. The walls of the aneurism were thick and firm, and only showed some degree of thinning and yielding at the apex of the external tumor. The aorta was much dilated from its origin through the entire arch; aortic walls firm. The aortic valves were expanded and thickened, yet competent.

Of the tracings, No. 60 shows the two radial pulses taken simultaneously. It will be observed that the pulsations are well formed—in fact, they show a rather low arterial pressure, but no departure from a normal type; that they are uniform with each other in amplitude, secondary waves, pressure degree and all. Especially will it be noticed that the signal lines (purposely placed near the basal points) are precisely in the same relation to the basal

In the ascending line just after what at first view would be taken as the basal point, is an angle of deviation. Measurement from this latter and the basal point of the heart-trace gives $\frac{1}{7}$ of a second as the time-difference between the pulsations of the heart and tumor—an interval entirely consistent; while measurement from the first point named, and the cardiac basal point would make the heart-tumor interval extremely short—too short, in fact, to be admissible on any just theory as the true representation. Therefore, in this case, the second point is adopted as marking the beginning of the discharge-wave from the heart, which is indeed the true pulse-wave.

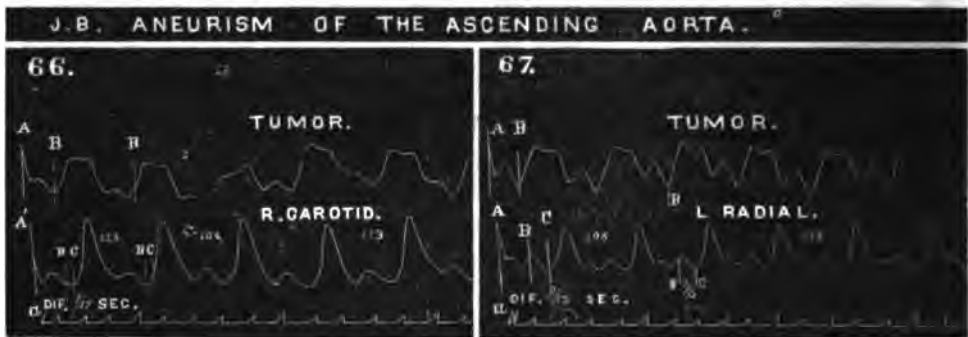
The sphygmographic records in the present case demonstrate:

1. That innominate aneurism of large size, communicating with a dilated aorta, may exist without the pulse, beyond, either in form or time, affording any evidence whatever of the presence of such aneurism; witness the correctness and perfect equality in form and time of the two radials.

2. That the effect of such aneurism on the form of the pulse beyond, may be positive and marked; witness the great inequality in form of the two carotids.

3. That the effect of such aneurism on the time of the pulse may be negative as to delay; witness the time between the heart and tumor, between the heart and radials, and the perfect equality in the time registry of the two radials, the two subclavians, and the two carotids.

In this case, also, the demonstration is complete, that the pulse-form was correct in the right radial, because of the free passage to the subclavian, and imperfect in the right carotid because of the ob-



points in both tracings, which demonstrates the exact synchronism of the right and left radial pulses. The same characters and conformity of the radial pulses are shown again in Nos. 64 and 65. These representations also demonstrate that the time-difference between the cardiac and radial pulsations is about one-eighth of a second. (A seventh may be attained by extending the measurement beyond the lowest point of the radial traces, which is the more correct method for estimating the interval between the heart and arterial pulses.) Even a seventh of a second would not be greater than the average normal cardio-radial interval, with pulse at 90.

In No. 61, owing to the more superficial position of the right subclavian, its pulse-trace is more ample than that of the left; the pulsations are shown to be synchronous.

In No. 62 the right carotid pulse compared with the left is greatly reduced and deformed, yet there is between the pulses no appreciable asynchronism.

In No. 63 the *ligne d'ensemble* of the tumor-trace undulates in a marked manner with the respiration.

structed passage to this artery. Hence the question arises whether the peculiar pulse-deformation, observed below some aneurisms, does not always depend upon arterial obstruction from filling of the lumen, or pressure of the tumor, or both. The question is one of importance.

The two following cases will aid our investigation. They were in the Cincinnati Hospital, and kindly placed at my disposal for sphygmographic study. The notes were derived from the records and personal observation:

CASE II. Aneurism of the Ascending Aorta.—J. Bradford, aged 81 years; suffers from dyspnea. Presents a prominent pulsating tumor a little to the left of the median line, and two and a half inches above the nipple. The tumor manifests thrill to the touch and murmur to the ear; the latter synchronous with the first sound of the heart, and heard over a considerable area. Tracings taken in August, 1877. Patient afterwards found his way into St. Mary's Hospital, where he died. The autopsy revealed a large aneurismal tumor, involving the ascending aorta

from near the innominate downwards, to near the origin, and extending from the upper border of the second to near the fourth rib; sternum eroded. On section, the walls for the most part were reinforced by thick layers of fibrin; although a number of accessory sacs presented with thin walls, one of which had ruptured into the right pleural cavity and proved the immediate cause of death. The left ventricle was somewhat enlarged and turned posteriorly.

Inscriptions of the heart's apex could not be obtained on account of its recedence from the chest-wall, therefore observations were limited to the tumor and arteries.

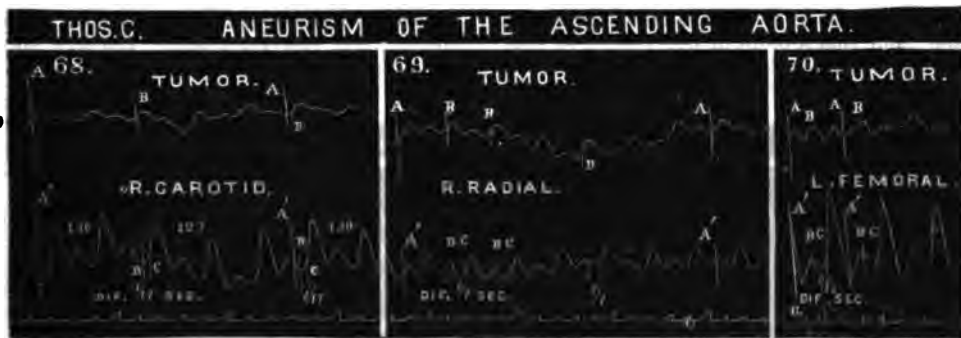
No. 66 shows simultaneous tracings of the tumor and right carotid; No. 67 shows the same of the tumor and left radial. The pulse acceleration, 108-118, the diastolic and low pressure will be noticed; also the characteristics of the tumor traces. The deviation in the lower part of the up-stroke, sufficiently indicated in the tumor and carotid traces, but less distinct in the radial, probably marks in this case, as in the first, the beginning of the true pulse-wave, sent from the heart. The preceding lowest point, however, is more definite, and representing, as it unquestionably does, the same stage of the respective pulsations, is more certain and available for measurement. The interval between the pulsations in the tumor and

The aneurism commenced very near the aortic orifice, which latter was considerably dilated, and involved the ascending portion of the vessel, which was expanded into a large flabby sac.

My observations were made January 31st. Nos. 68, 69, and 70 are reproductions of the graphic records. The pulsations of the aneurism were taken at the fourth right interspace, but they were too feeble to produce good traces. However, the basal points are fairly discernible. The heart's pulsations could not be traced.

In the measurements, wherever there might be uncertainty as to the position of the basal points, those were selected which would afford the shortest interval; so if any error of representation exist, it is in making the time differences shorter than the true ones. As shown, the tumor-carotid and tumor-radial intervals, respectively, are closely the same as in the preceding case. The tumor-femoral interval also shows prolongation, and that it is in proper relationship to the tumor-radial interval. The pulse frequency is 127-180, and the pulse-form reflects only a very common type.

Respecting the form of the pulse, these two latter cases support the first in opposing the idea that aneurisms, independent of arterial obstruction, impress upon the pulse beyond a peculiar deformation;



carotid measures, as shown, $\frac{1}{4}$ of a second; and that between the tumor and radial, $\frac{1}{4}$ of a second. If no cause of delay existed the pulse-wave would pass over the distance represented by the tumor and carotid in $\frac{1}{4}$ of a second at the longest, and over the distance represented by the tumor and radial in $\frac{1}{4}$ of a second at the longest. The reason of the apparent greater delay of the carotid pulse compared with the radial is that the retardation takes place in the aneurism, and the pulse-wave reaching the free artery beyond, travels on with its accustomed velocity. In form, both the carotid and radial present the usual features of accelerated, moderately ample, and low-tension pulses.

CASE III. Aneurism of the Ascending Aorta.—Thos. Conley, aged 30 years, has suffered between two and three years from trouble within the chest. Front of chest, especially to left of sternum, bulging, and flat on percussion. Pulsation seen and feebly felt over an unusual area, more distinct than elsewhere in the fourth right interspace near the sternum. Absence of thrill, usually no murmur, although a systolic one has at times been detected. Patient very feeble; radial pulse small and frequent; suffers greatly from pain, dyspnoea, and cough. Died suddenly the last of February, 1879. The post-mortem disclosed an extensive aneurism of the ascending aorta which had ruptured and discharged into the right pleural cavity.

The pulse-forms in these cases being only such as often present in other conditions. It seems reasonable, however, that there should be a description of aneurism with free arterial ingress and egress, which would cause the pulse-form of the affected distal artery to differ from that of the opposite unaffected artery, and yet not to the extent of a typical deformation.

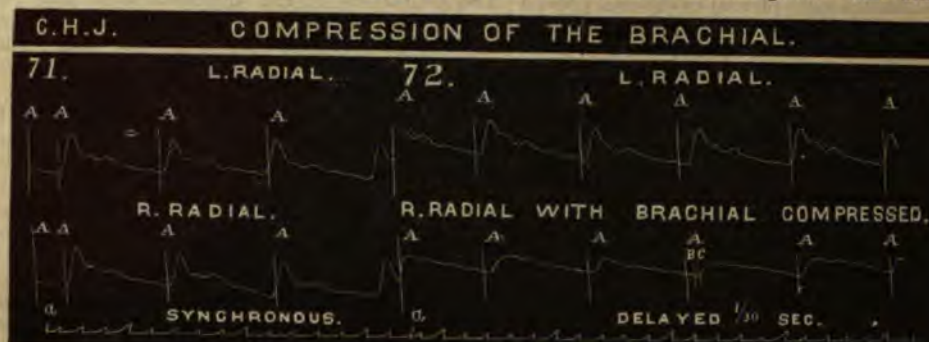
In point of delay, these cases accord with François Franck's; and delay of the pulse, as an effect of certain aneurisms, may be accepted as a demonstrated fact. Can we differentiate the aneurisms which produce pulse-delay from those which do not? Case I., in which there was no delay, presented an aneurism of large size, free arterial passages, and resisting walls; while Cases II. and III., in which there was delay, presented aneurisms of large size, free arterial passages, and yielding walls. The conclusion would follow that the opposite conditions of the aneurismal walls produced the difference observed in the time of the pulses. Observations are needed to determine whether a sacculated aneurism, communicating with the artery by a small opening, would cause delay of the distal pulse. It is conceivable that it would not. From what we have learned of the effect of large aneurisms on pulse-transmission, we are prepared to believe that small ones would cause no appreciable delay.

My own observations indicate that the pulse-retardation in aneurism is much less than that in valvular disease of the heart, and greater than that of any general condition of the vessels and circulation.

Are there any other conditions than aneurism affecting an artery that may produce retardation of its pulse-wave? Two are suspected—namely, arterial

pulse of the obstructed artery notably behind other in point of time. Nos. 71 and 72 give representation of the results obtained.

The delay of the obstructed pulse compared with the other is about one-thirtieth ($\frac{1}{30}$) of a second, which would about double the usual delay of the radial on the brachial pulse. This demon-

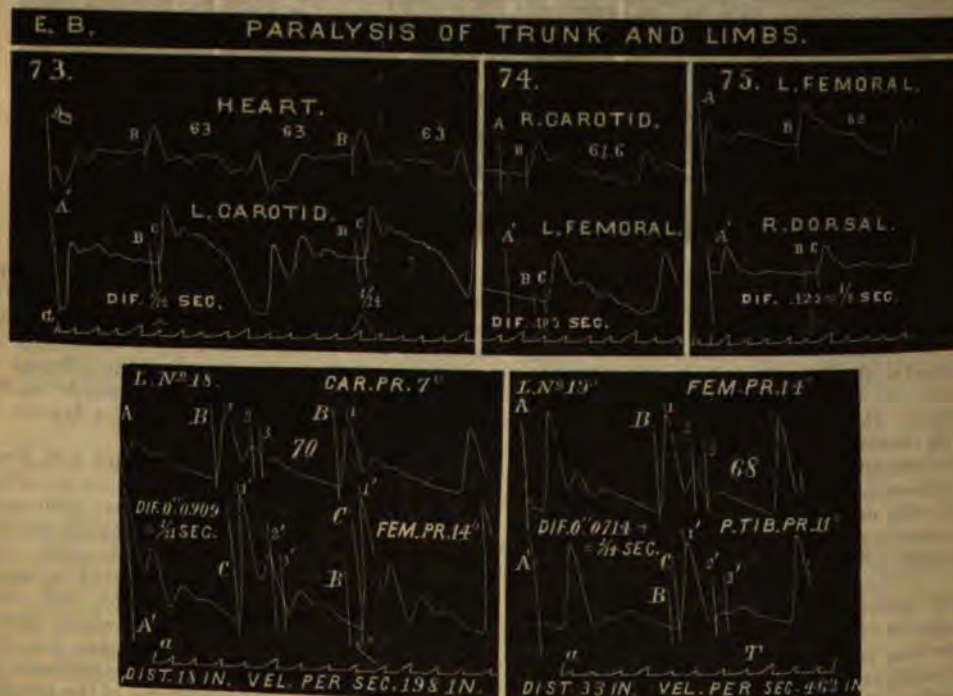


obstruction, and the condition recognized as vaso-motor paralysis. These we will examine.

In Case I., cut No. 62, the right carotid pulse, although greatly reduced and deformed by arterial obstruction, shows no appreciable delay. Yet it must be considered, that if delay arise from obstruction, it will be more evident at a distance from the site of obstruction; and that a point of observation so near as in this case, could not be expected to show it, even if initiated. I have tested the effect of tempo-

however, is conclusive only as to the effect of temporary obstruction, and the query remains whether permanent obstruction in which the artery is contracted and adapted to the blood-stream retardation would occur. Data are wanting for settlement of this point.

In one of Francois Franck's cases of immovable aneurism, the sphygmographic tracings showed the right radial pulse fuller and better developed than the left, and the temperature was elevated 1



rary compression of an artery on the velocity of its pulse-wave. Two healthy men were separately placed under experiment by first tracing their two radials simultaneously to prove them synchronous; and after compressing one brachial so as to leave the pulse just perceptible, tracing the radials again, and noting the time-relationship of the two pulses. These observations many times repeated showed the

the right side. These phenomena were attributed to vaso-motor paralysis, produced by pressure of a tumor on the first thoracic ganglion of the sympathetic. The influence of vaso-motor paralysis on pulse-wave velocity is an interesting question presents for investigation.

The view has been advanced that the peripheral vasodilation and consequent easy flow of

the ligamentum patellæ, disarticulated at the knee, and lastly, shaped the posterior flap, cutting from within outward. I next sawed off the femoral condyles half an inch above their articulating surfaces, and deprived the patella in the same manner of its articulating surface, including both the outer and inner facet. After several ineffectual attempts to bring down the patella, I divided the tendon of the quadriceps extensor, which enabled me to adjust the parts with the greatest facility. The popliteal and a small muscular branch were the only arteries which required the ligature. Common silk ligature was used. The soft parts were then carefully adjusted and the flaps stitched together with silk suture. Proper measures were adopted for the purpose of securing free drainage, and the limb placed in an easy, slightly elevated position. Anodynes and water-dressings constituted the treatment for the first forty-eight hours. At the expiration of that time the soiled dressings were removed, when it was first discovered that a patch of bruised skin was included in the posterior flap, and which showed a disposition to slough. This patch of bruised integument, which was not noticed at the time of the operation (the operation being done at midnight), occupied the central margin of the posterior flap, and covered a surface of about one by two inches. Vigorous poulticing brought about a speedy separation of the slough. While the sloughing was going on, the patient exhibited symptoms of pyæmia, and for about two days it was extremely doubtful if he would recover. But under the use of the tincture of the chloride of iron and quinine, along with stimulants and a liberal diet, faithfully and perseveringly administered, the unfavorable symptoms rapidly disappeared. The wound healed nicely by granulation, making a good solid stump. There is firm and perfect union of patella and femur, and apart from a little tenderness in the line of the cicatrix, the stump is capable of bearing considerable pressure, notwithstanding that it is only a little over two months since the operation. There was no attempt at antiseptic treatment. But there was careful personal attention to every detail in the after-treatment. Perfect rest of mind and body was enjoined. The limb was handled in the most delicate manner. Free drainage was effected, and the parts were kept scrupulously clean.

Reports of Hospitals.

THE PRESTON RETREAT, PHILADELPHIA.

SERVICE OF WILLIAM GOODELL, M.D.

(Reported for THE MEDICAL RECORD.)

LACERATION OF THE PERINEUM.

DR. GOODELL advises the immediate operation, which he has found to be very successful in incomplete lacerations. In complete lacerations it is not as successful as the secondary operation. In the primary operation, in order to put in the stitches accurately, Dr. Goodell recommends that ether be given, and that a sponge be placed high up in the vagina to stop the flow of the lochia, which embarrasses the operator. The stitches are applied as in the secondary operation, and merely twisted together. In the secondary operation, if the sphincter ani is involved, he always embeds the first two stitches. On the eighth day all

the stitches are removed, except the lowest. The fæces are then softened by an injection of warm sweet-oil, and the bowels are moved twelve hours later, by an ounce-dose of castor-oil, aided, if necessary, by an injection. After the bowels have been emptied, the remaining stitch is removed.

FUNGUS VEGETATIONS OF THE ENDOMETRIUM.

In fungous vegetations he removes the unhealthy growth either by the dull or by the sharp curette, or, if the os is sufficiently patulous, by means of a small fenestrated polypus-forceps. The uterine cavity is then cleansed with a saturated tincture of iodine, provided the cervical canal is narrow. But when it gapes, Dr. Goodell prefers Monsel's solution. In the former condition he avoids the use of the iron, because it forms clots which cannot easily be expelled by the womb without giving rise to much pain. He deems the iron, however, the more efficacious treatment of the two.

VAGINITIS.

Non-specific and acute cases of vaginitis he treats by such hot and emollient injections as flaxseed, or slippery-elm bark tea, to which laudanum has been added; the solution which he usually employs contains laudanum f. ʒ ij. to Oij. of flaxseed. When the inflammation has subsided, vaginal suppositories, containing five grains of iodoform, are ordered twice or thrice daily. In the chronic forms of this complaint, suppositories of tannin, or of iodoform, or long tampons of absorbent cotton, are employed, which have been dipped in astringent solutions of acetate of lead and of zinc to which laudanum has been added.

CONICAL CERVIX.

This condition is treated either by forcible dilatation with a strong uterine dilator, or by lateral section with a hysterotome. If the cervix is sickle-shaped, he performs the section of the posterior lip. The subsequent treatment consists in such local applications as tend to keep the parts from closing up.

PROLAPSE OF BOTH OVARIES

is best managed by the knee-breast posture, and by the administration of such alteratives as tend to lessen the congestion of those organs. Among these he deems the best to be the chloride of ammonium in combination with the bichloride of mercury. Sometimes, however, large doses of the bromide act very happily. He considers this dislocation to be due in a great measure to the congestion of the sexual organs from the use of measures to prevent conception, or from masturbation. He finds that pessaries are rarely useful in this distressing condition. But, if any are employed, he considers Cutter's bulb to be the best. He regards this condition as a very frequently overlooked cause of many pelvic aches and pains, which are attributed very generally to the womb alone.

CLOSURE OF THE VULVA FOR VESICO-VAGINAL FISTULA.

In curable cases of vesico-vaginal fistula in which the urethra has been destroyed, he has twice succeeded in wholly relieving the patient. In one instance this was done by making an artificial recto-vaginal fistula, and in the other by leaving an already existing one intact and closing up the vulva. Whenever practicable he prefers, in this unfortunate condition, when the urethra is unimpaired, to close the vagina as high up as possible, so that the marital relations shall not be interfered with. If the

case be an uncomplicated one, he prefers the use of shot to twisting of the wire, because they form permanent adjusters of the wire and prevent eversion of the edges of the wound.

CARUNCLE OF THE URETHRA.

In timid women who refuse to submit to an operation, he either mummifies the growth with crystallized carbolic acid melted down by heat, or destroys it by applications of chromic acid made with the utmost care, by means of a match whittled down to a point. The excess of acid is afterward neutralized by means of injections of a strong solution of the bicarbonate of sodium. If an operation is permitted, he cuts off the growth with a pair of scissors curved on the flat, and sears the wound with a hot iron wire, or with Paquelin's *thermo-cautère*. He advises the use of an alcohol lamp for heating the wire, because, when an ordinary light is used, the impression upon the operator's retina, made by the bright flame, so obscures his vision that the wire grows cool before he can clearly see the point where the application is to be made. He hastens the healing of the canterized surface by occasional applications of carbolic acid, or by dusting it with iodoform.

CANCER OF THE CERVIX.

Whenever practicable, the whole cervix is removed by either the hot or the cold wire. If this cannot be done, he removes the malignant growth by scraping or by means of the gouge-forceps, and the surface is subsequently charred with the thermo-cautery. This radical treatment is reinforced by subsequent applications of the ethylate of sodium. In these operations upon the cervix Dr. Goodell finds that injections of ordinary vinegar form an excellent means of controlling any embarrassing bleeding. By these means he has succeeded in curing several cases.

CYSTITIS IN THE FEMALE.

Transient cystitis, dependent upon obscure causes, is treated by rectal suppositories containing one grain each of the aqueous extract of opium and of the extract of belladonna. Hysterical cases generally yield to "massage" and electricity. In obstinate cases, Dr. Goodell warmly advocates the dilatation of the urethra throughout its whole extent by the introduction of the forefinger. In the therapeutical treatment of this troublesome disorder atropia is the most efficient remedy, and it may be combined with alkalies or acids, according to the condition of the urine. Injections of a two-grain solution of quinia into the bladder, together with large doses of the same by the mouth, will often improve the condition of the patient. In very bad cases, perhaps the most efficient injection is one of the nitrate of silver, beginning with weak solutions and increasing their strength daily until twenty grains to the ounce solutions are tolerated. These strong solutions should not be allowed to remain in the bladder longer than ten or fifteen seconds. All malpositions of the womb must, of course, be rectified, especially if they have any bearing on the disease.

OVIARTOTOMY.

In six cases of ovariectomy performed within the past nine months, with but one death, the following procedure was invariably adopted. A five per cent. solution of carbolic acid was used in the spray, and all instruments and sponges were immersed in a solution of the same strength. The pedicle was treated by the intra-peritoneal method, being transfixed, tied, and dropped within the abdominal cavity. The peri-

toneum was invariably included in the stitches which closed the abdominal wound. All obstinate bleeding points were tied with gut ligature, but the pedicle itself was secured by fine carbolized silk. In three cases where the adhesions were numerous, the glass drainage-tube was employed. The dressing consisted merely of salicylated cotton held in place by adhesive strips, the whole being secured by an elastic flannel binder. Dr. Goodell prefers the above dry application to Professor Lister's wet dressing. The after-treatment consisted in opium enough to allay pain, and in one tablespoonful of milk combined with lime-water given every three hours for the first forty-eight hours. As soon as flatulence escaped from the bowel the supply of food was increased. The patients were prepared for the operation by a soap-bath on the previous evening, and by the administration of one grain of opium at bedtime. On the following morning one grain of opium and ten grains of quinia were given. Dr. Goodell always operated at eleven o'clock in the morning, as being the time when the vital forces are at their best. When high temperature ensued, it was reduced by the application of an ice-cap, which was found to be an efficient means of lowering bodily heat.

PUERPERAL FEVER

is invariably treated by intra-uterine injections of a warm two per cent. solution of carbolic acid. Ten-grain doses of quinia are given every four hours until marked cinchonism is produced. Morphia is administered in doses sufficiently large and as frequently as necessary to relieve pain. The whole surface of the abdomen is painted with the compound tincture of iodine, and covered with a large mush-poultice. If it is deemed necessary to open the bowels, large doses of calomel are used.

SORE NIPPLES.

Chapped nipples are treated either by the glycerole of the nitrate of lead in a solution containing from twenty grains to one drachm to the ounce, or by a mixture of two drachms of iodoform to the ounce of balsam of Peru. The balsam is used because it disguises the smell of the iodoform.

GATHERED BREASTS.

When an abscess forms in the mammary glands, an early incision is practised. If the pus lies deep or is lodged behind the gland, a cutaneous incision is first made, a grooved director is then pushed into the abscess, and the opening is enlarged by the uterine dilator. The breast is then tightly strapped with adhesive plaster, and treated by a dry compress of oakum. Should the abscess show symptoms of becoming chronic, its walls are overdistended by an injection of a three per cent. solution of carbolic acid. This overstretching is practised so that the acid may reach every nook and cranny of the purulent cavity.

THE TREATMENT OF THE FUNUS.

As soon as the child cries lustily the cord is cut, and the umbilical portion being firmly held by the thumb and forefinger, the free end is "stripped" of Wharton's jelly and of any blood that may remain in it. Any blisters of Wharton's jelly which still remain are emptied by this process of "stripping," are nicked, and their contents squeezed out. After the removal of the pressure of the thumb and forefinger all bleeding usually ceases, and then the cord is tied. No subsequent dressing is thereafter used, for the cord rapidly dries without smell and drops off without leaving a sore behind.

VAGINISMUS.

Dr. Goodell has never yet been compelled to resort to the deep, posterior incision of Dr. Sims, although in two cases he was obliged to snip off irritable carunculae myrtiliformes. He treats this disease precisely as he would treat an anal fissure. If the local spasm does not yield to constitutional treatment and to vaginal suppositories of morphia, belladonna, carbolic acid, and iodoform, he puts the woman under ether, and forcibly stretches the vulvo-vaginal opening either by means of the two thumbs, or by the fore and middle fingers of each hand.

NOTES ON CONGENITAL SYPHILIS.

Congenital syphilis appears either before or after birth. The labor is usually premature, and the first symptom of the disease is the hoarse cry to which the child gives utterance. The bullae soon show themselves. The disease in utero takes the form of placentitis, the exudation presses the blood out of the small capillaries, and so gradually starves the product of conception; or there may be a gummy tumor or fatty degeneration of the placenta, so causing premature labor. In some cases the labor is precipitated by atheroma of the cord.

He explains the hoarse cry, above referred to, by the presence of syphilitic ulcers on the mucous membrane of the child's throat and air-tubes. Such children are always puny and sickly-looking. The bullae appear in the course of a few hours after birth, and are first visible on either the scrotum, hands, or feet.

If the disease is not already in existence at birth, it usually begins some time between the second week and third month after birth. The child cries a great deal at night. This cry, which is occasioned by the incipient bone-disease, is muffled and hoarse. Another symptom is the snuffles: the child's nose is all stopped up, and then a scalding coryza comes on. Then the child grows wizened and thin, and its skin lies in rolls and wrinkles. The so-called *copper maculae* appear, or the complexion gradually assumes a coffee-and-milk hue. Then the eruption comes out all over the body and stamps the case indisputably as one of syphilis.

FISSURE OF THE RECTUM.

Dr. Goodell treats fissures in two ways, viz.: 1st, by cutting through the adjacent muscular fibres; and 2d, by overstretching the sphincter ani muscle. He much prefers the second method. To do this he inserts his two thumbs into the rectum, and pulls them apart until the sphincter begins to yield or he feels the rami of the ischia on each side. To do this requires the exercise of considerable force.

HEMATOMA OF DOUGLAS'S POUCH.

The patient is kept absolutely quiet, and astringent drinks, such as sulphuric acid, lemonade, etc., administered. Opium enough is given to lull the pain and keep the patient thoroughly quiet. For a number of hours following the attack but very little food is given. Stimulants are avoided. Occasionally the vagina is packed with ice.

HABITUAL CONSTIPATION.

The following prescription is a very favorite one with Dr. Goodell:

R. Ext. colocynth. comp. gr. ij.
Pulv. rhei. gr. j.
Ext. belladonna. gr. ʒ.
Ext. hyoscyami. gr. ss.

M. divide in pil. No. 1.

S. To be taken at bedtime.

In some cases $\frac{1}{16}$ of a grain of strychnia is added with profit to the foregoing. In most cases "massage" is employed with the very best results.

PERIMETRITIS.

Dr. Goodell has the patient put to bed, and kept quiet. Flying blisters are then applied locally over the abdomen. A series of these blisters are used. Together with this local treatment, $\frac{1}{4}$ of a grain of the bichloride of mercury, with ten grains of the muriate of ammonia, is given thrice daily in the mist. glycyrrhizæ comp.

The following mixture is also often used:

R. Hydrarg. chlo. corros. gr. j.
Liq. chlo. arsenitis. f 3 ss.
Mist. ferri chlo.,
Acid. muriat. dil. ss f 3 ij.
Syrupi. f 3 ij.
Aque. q. s. ad f 3 vj.

M.

S. One tablespoonful after each meal.

THE DIAGNOSIS OF OVARIAN CYST.

Dr. Goodell distinguishes ovarian cyst from dropsy in the following manner: In a case of ascites the abdomen, when the patient is placed on her back, is flat on top, and bulges out at the sides. In ovarian cyst the very opposite is true. In ascites the intestines float up to the top, and resonance is elicited upon percussion. In ovarian cyst percussion gives only flatness.

There is one certain way of settling the question of the existence or non-existence of ovarian cysts, and that is by means of the aspirator. The fluid of ascites is straw-colored and limpid; that of a monocyst is perfectly clear and limpid, like spring-water; that of a polycyst is thick, dark, and turbid, from disintegrated red blood-corpuscles; that of an oligocyst is usually of a milk-and-water or of a light brown color. The discovery of the Drysdale ovarian cells in an aspirated fluid is proof positive of its origin.

MISCELLANEA.

Dr. Goodell frequently employs the following: (1) A modification of Basham's mixture.

R. Tinc. ferri chlor. f 3 ij.
Acid. acet. dil. f 3 ss.
Liq. ammon. acet. f 3 ijss.
Curacoe,
Syrup. ss f 5 j.
Aque. q. s. ad f 3 viij.

M. S. One tablespoonful after meals.

And:

R. Tinct. ferri chlor. f 3 ij.
Acid. phos. dil. f 3 ij.
Spts. limonis. f 3 j.
Syrupi. f 5 ijss.
Aque. q. s. ad f 3 vj.

M. S. A tablespoonful after each meal.

WOMEN AS DRUGGISTS.—At the last meeting of the Council of the London Pharmaceutical Society, two ladies, who had previously passed examinations as pharmaceutical chemists, were elected members of the Pharmaceutical Society with but one dissenting vote. The question of the admission of women had for some years been discussed before this Society, but was always voted upon unfavorably.

Progress of Medical Science.

METALLOTHERAPY IN HYSTERIA—REPORTED CURE OF A CASE BY ZINC.—The following instance is worthy of note as bearing upon a question which is now exciting discussion among neurologists. Dr. Moricourt reports a case of hysteria in a girl eleven years of age, in which, after the failure of other methods of treatment, he had recourse to metallothrapy with the most satisfactory results. Copper, gold, and tin were applied successively without appreciable result; but zinc produced, in a few minutes, sensations of titillation and heat under and around the metal, followed by a notable augmentation of sensibility and muscular power. The oxide of zinc was then prescribed internally, two pills containing three-fourths of a grain each being given daily, and in a few days the convulsive attacks disappeared. They returned again two weeks later, after the treatment had been discontinued for four days, but disappeared once more as soon as the use of the pills was resumed. A month later the patient began to suffer from gastralgia; the dose of zinc was doubled, and frictions to the epigastrium with zinc ointment were ordered, and in a few days the gastralgia was cured. Shortly after this the patient received a severe fright, which was followed by contraction of the limbs and loss of the power to walk. The use of the pills was continued, and the daily application of zinc armatures to the legs and thighs ordered. The contracture yielded readily, and in a week the patient was able to walk a long distance, but she began again to have hysterical attacks and gastralgia. Investigation showed that the armatures used had been, by mistake, made of four metals—copper, iron, zinc, and tin; plain zinc bands were substituted for them and the patient had no more hysterical attacks. The gastralgia, however, yielded more slowly. The armatures produced sensations of pricking and burning, and left red marks which were visible for twenty-four hours. Treatment was continued for about six months, when the cure seemed to be permanent. The parents suspended the treatment several times, contrary to orders, because they thought the child was cured, but were compelled to resume it again in a few days by a return of the symptoms.—*Gazette des Hôpitaux*, Sept. 9, 1879.

ON FATTY EMBOLISM AFTER INJURIES OF THE BONES.—M. Déjérine reports the results of a series of experiments on dogs, undertaken with a view to determine what injuries of bones are followed by fatty embolism of the lungs. His results differ from those of Flournoy and Hahn, as he did not succeed in producing fatty embolism, either by fractures of the skull, or by simple fractures of the extremities. The result sought for was only obtained in cases in which he irritated the bony marrow by the introduction of foreign bodies into the medullary cavity, and it varied very greatly in degree according to the nature of the foreign body employed. In one set of cases he used pieces of iron wire, which, acting simply as inert foreign bodies, excited only a moderate degree of inflammation, and the fatty embolism was so slight that it would have been entirely overlooked, if the lungs had not been subjected to careful microscopical examination. In other cases tents of laminaria were substituted for the iron wire, and the difference in the effects produced was most striking, the fatty embolism of the lungs being as marked as in several cases

in men, in which it had been the principal, if not the sole cause of death. The fat-drops were present in abundance in the veins of the extremity operated on, and filled the capillaries of the lungs to such an extent, that those organs were almost entirely injected with fat. Dr. Déjérine was led to use laminaria by the comparative failure of the iron-wire experiments, and by the theory advanced by Chassaignac to account for the presence of oil-globules in the pus of osteomyelitis, viz.: that the bony marrow, when increased in volume by inflammation and compressed against the bony walls of the cavity, enters the vessels and appears on the surface of the bone. The laminaria swells after its introduction, compresses the marrow, and the same result is obtained as in inflammation. The conclusion drawn by Dr. Déjérine from his experiments is, that fatty embolism of the lungs does not follow indifferently all experimental injuries of bones, but that for its production it is necessary to place the animals under conditions similar to those following severe injuries of the bones in men.—*Gazette Médicale de Paris*, Sept. 13, 1879.

PREPARATION AND USES OF THE ALBUMINATE OF IRON.—Prof. Donitz, of Tokio, speaks in the strongest terms of the value of the albuminate of iron in anæmic affections, which, in Japan, form an unusually large proportion of the maladies that come under the charge of a physician. He prepares it in the following way: the whites of one or two eggs are stirred briskly in 150 c.c. of water, and a solution of six drops of the liq. ferri. perchlor. to 30 c.c. of water is added very slowly, the mixture being constantly stirred. When the first drops of iron are added, a cloudiness appears, which, however, has mostly disappeared by the time all the iron has been added; the addition of a few drops of very dilute muriatic acid accelerates the clearing up of the mixture, but with proper care it is superfluous. Any large flakes of albumen which remain after the mixture of the two solutions, can be filtered off with comparative ease, as the albuminous fluid passes more readily through the filter after the addition of the iron. Water is then added to the filtered fluid until its volume is brought up to 150 c.c., when a tablespoonful of it will contain exactly half a drop of the liquor ferri. perchlor. When muriatic acid is used, great care is necessary, as a very slight excess is liable to cause the mixture to become cloudy at a subsequent period. This iron-albuminate can be dried and preserved in the form of powder, and when needed for use it is simply redissolved in water. During the last two years, Prof. Donitz has employed this preparation in a very large number of cases of anæmic affections, and has been thoroughly satisfied with the effects produced by it. He has found that it can be tolerated without difficulty by the weakest stomachs, even when no other preparations of iron can be borne. Most of the cases in which he employed it were examples of simple anæmia due to badly prepared and insufficient food, but he has also found it particularly serviceable in the terrible disease called in Japan "kakke," and known in India under the name "beriberi." In this disease, which is still but imperfectly understood, the blood becomes very watery, and, in fact, the hydræmia constitutes the first tangible, pathological alteration. At first, Prof. Donitz administered the albuminate of iron internally in cases of this affection, but the results were not entirely satisfactory, as it proved useful only in mild cases and in convalescents; finally, however, he tried it hypodermically, and, thus employed, he found it all that could be desired. In

some cases, in which for the sake of experiment no other treatment was used, the daily excretion of urine increased in about a week from 150 c.c. to 900, and even 1,400 c.c. the oedema and serous transudations rapidly disappearing at the same time. The ordinary dose for hypodermic use in mild cases was four Pravaz syringefuls daily (about one drachm); these were usually injected in two different spots at the same time. In severe cases the dose was doubled, the above quantity being injected twice a day. An induration sometimes remained for several days at the point of injection, but no abscesses ever formed. Prof. Donitz tried a stronger preparation than the above, but soon gave it up, as he found it very much more difficult to prepare, while it did not seem to produce any better effects. A marked increase in the excretion of urine, which is one of the first signs of improvement in kakke, was usually observed on the third day after this treatment was begun. When used internally, the ordinary dose was a tablespoonful three times a day.—*Berliner klin. Wochen.*, Sept. 8, 1879.

MYXEDEMA.—At a recent meeting of the Clinical Society of London, nine cases of this curious disease were reported by various observers. It was first described, some years ago, by Sir William Gull (see *MEDICAL RECORD*, Sept. 20, 1879), as a "cretinoid condition supervening on women in adult life," and subsequently by Dr. Ord, who called it myxedema. Its chief pathological characteristic is a universal mucoid degeneration of the connective tissue of the body.

Upon post-mortem the body is found swollen; the various organs are not much affected. The microscope shows everywhere a great increase of connective tissue; the fibrillar element is more abundant, while the interstitial mucus-yielding element is still more increased in amount. The connective tissue looks like the sheath of the umbilical cord. These changes are best seen in the skin, glandular organs, and coats of the arteries. Their encroachment on other tissues and organs seems to be the cause of death.

The affection seems to be confined to married women between the ages of 30 and 50. No hereditary influence or special exciting cause has been given.

The symptoms are characteristic and the disease can be easily differentiated. The patient generally begins to swell and increase in size, the face has a puffy, anæmic look like that of Bright's disease, but there is no oedema, and rarely any albumen in the urine.

The movements become slow, the mind grows lethargic, and the perception dull; at times the patient has delusions, or becomes of sullen temper; the appetite is lessened, the bowels are often constipated.

The temperature is very low, toward the close of the disease falling to 92°, 90°, 88° F., and in one case even to 77° just before death. The course of the disease is chronic; it generally lasts ten or twelve years; but the patient gradually becomes more stupid and lethargic, and, though there may be an interval of improvement, death seems to be inevitable.

No satisfactory treatment has been discovered; iron and cod-liver oil have so far been oftenest given.—*Medical Press and Circ.*, Oct. 15, 1879.

SUBCUTANEOUS OSTEOTOMY.—The subject of subcutaneous osteotomy, which has excited increased attention during the past five or six years (see *MEDICAL RECORD*, Nov. 22d), was brought up before the surgi-

cal section at the last meeting of the British Medical Association, and elicited a number of valuable papers from prominent surgeons. The discussion was confined chiefly to the operation for genu valgum and ankylosis of the hip, for the cure of which affections it has been most often employed.

Subcutaneous osteotomy was first performed by Langenbeck in 1848, but it was soon adopted and extended by American surgeons. The operation was placed on a more definite basis by Mr. Wm. Adams, of London, who, in a series of cases, sawed through the neck of the femur within the capsule, and obtained excellent results. It soon appeared, however, that the procedure was only applicable in those cases, generally of rheumatic or pyæmic origin, where the head of the bone preserved its integrity. As a compliment to the Adams operation, therefore, Mr. Gant devised that of dividing the shaft of the femur below the trochanters. The operations of both Mr. Adams and Mr. Gant were done by making an incision with a narrow knife, and then withdrawing the knife and passing a saw along the track thus made.

In 1876, Dr. Ogston, of Edinburgh, applied the operation to the correction of genu valgum. Operating antiseptically, he pierced the knee-joint, split up the femur, and then detached the internal condyle. This operation, which has often been repeated by others, has now become an established success, and is reckoned among the triumphs of modern surgery. It has been greatly modified, however, and the question of the best way to operate subcutaneously for genu valgum is still unsettled. Thus, Mr. Lister makes a free incision over the internal condyle, and then makes a section or partial section of the lower end of the femur with a chisel and without entering the joint. This plan is essentially the one devised by Professor Macewen, of Glasgow, except that the latter makes a small incision, and only a partial section; the bone then is broken in straightening the limb.

Mr. B. E. Brodhurst does not believe that osteotomy is often called for in genu valgum, and denies that the internal condyle in this affection is often lengthened. His favorite plan is to divide the external lateral ligament and the biceps tendon.

Mr. Richard Barwell, who believes that in genu valgum there is curvature of the upper end of the tibia, as well as of the lower end of the femur, first partially divides, and then fractures the latter. In a few weeks he does the same thing to the tibia. He generally uses the Lister spray.

It appears from the papers presented that the following questions regarding subcutaneous osteotomy for genu valgum are not yet fully settled: 1. Which is the best plan? 2. What is the best instrument? 3. Whether the Lister spray be necessary? 4. At what age should the operation be performed? 5. In what cases will subcutaneous section of the tendons and ligaments be sufficient?

The facts given show: 1. That the operation is usually successful, whatever the method. 2. That incision into the knee-joint is not necessary for the success of the operation. 3. Authorities are against the practice of cutting the external condyle instead of the internal, and also against the necessity of cutting the fibula, as is sometimes done. 4. The chisel is the instrument generally used.

DR. MAUNSELL, a prominent Dublin physician and medical writer, recently died at the age of seventy-four years.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, November 29, 1879.

THE EXPERT TESTIMONY IN THE HAYDEN TRIAL.

THE trial of the Rev. Mr. Hayden for the murder of Mary Stannard has become a notable one in every respect. The circumstances surrounding the crime were mysterious, and no direct evidence in regard to the murderer could be obtained. The State, however, has spared no efforts or expense to throw light upon the matter, and for this purpose they have secured a great deal of expert testimony. Through such agency some entirely new contributions to forensic medicine have been obtained, as well as valuable testimony upon other allied matters.

To appreciate what has thus been done the facts in the case may be briefly recited. Somewhat over a year ago a young woman, named Mary Stannard, was found dead by the side of the road in Madison, Conn. One side of her throat was deeply cut, and there was a bruise on her head. The post-mortem examination discovered ninety grains of arsenic in her stomach, which viscus showed also signs of inflammation from the presence of the poison. A small cyst, about the size of a hickory-nut, was found growing in one of the ovaries.

From various suspicious circumstances the Rev. Mr. Hayden was arrested on the charge of having committed the murder. The girl had worked as a servant in his family at one time, and he was alleged to have had improper relations with her. The result, as claimed, was that she thought herself pregnant, that the accused shared in the belief, and hence the crime. The presence of the ovarian cyst, it was testified, might have caused symptoms of pregnancy.

It was also learned that about the time of the murder Mr. Hayden had bought some arsenic of the village druggist, and a package of arsenic was found in Hayden's barn. The defense asserted that this was the arsenic bought by Hayden, and that it had been intended for rats.

On the shirt which Hayden wore on the day of the murder, experts asserted there was a spot of blood. In the thumb-notch of the knife, and on a stone which lay near the place of the murder, a few more corpuscles were claimed to have been found.

The three points upon which the expert testimony chiefly bore were: the significance of the ovarian tumor; the distinguishing of the arsenic in the barn from that in the village drug store, and the identification of the blood-stains.

The question of the arsenic excited by far the most attention, and it was here that novel and original work was done. To discover the presence of arsenic is sufficiently easy, but here, in addition, it was attempted to trace each specimen of the mineral to the particular drug store where it was bought. Thus, if it could be proved that the arsenic which was found in the barn, and which Hayden claimed to have bought at a certain druggist's, was unlike that on hand at that druggist's, while the arsenic in Mary Stannard's stomach did resemble it, a very important evidence for the State would be established. The prosecution brought three experts who testified that the "barn" arsenic was unlike the druggist's arsenic, or at least unlike that of the wholesale dealer of whom the druggist purchased. It was testified, also, that the "stomach" arsenic was much like that in the drug shop. It was well established by these experts that specimens of arsenic varied according to the particular method of manufacture, and that packages from different sources could, as a rule, be distinguished. The points relied on for this are: the proportion of crystals to dust and broken fragments, the size of the crystals, the size of the broken fragments, and the scratching, or its absence, on the face of the crystals. In ordinary commercial white arsenic the proportion of crystals is about one-half. Of the specimens examined at the trial, the "barn" arsenic differed from the druggist's arsenic in the size and proportion of crystals as well as in the character of the fragments.

The evidence, on the whole, was pretty conclusive as to this point, that differences do exist in different specimens of arsenic, and that these differences will make it possible sometimes to trace the article to its original source. At the same time it is to be remembered that arsenic, having different microscopical appearances, may be sent out from the same manufactory; also that a mixture of the various samples of the drug is liable to occur in every retail druggist's establishment. These facts, established by the defence, will probably make it rare for this kind of evidence to carry great weight. Ordinary juries will hesitate to hang a man because the proportion of arsenical crystals is only one-fifth.

The testimony in regard to the blood-stains has also considerable interest. At the preliminary trial, a year ago, an expert testified that the stain on a cer-

tain stone was made by blood. At the later trial he admitted this to be a mistake, and said that the supposed stain was due to the presence of a low order of plant, whose spores resemble blood-corpuscles. Another expert testified that there were about fifteen blood-corpuscles on Hayden's knife, and that a small stain on the prisoner's shirt was also due to blood. The tests for blood, and the possibility of distinguishing human blood from that of other animals, were very freely discussed, the scientific expositions being occasionally varied by touches of personal animosity toward rival experts.

It is not more than two years ago that a high English authority, Dr. Francis Ogston, asserted that there was no single test for blood which was absolutely certain—referring, of course, to the detection of small amounts of dried blood. We are impressed with the march of science, therefore, when learned experts swear that fifteen blood-corpuscles have been found in the notch of a knife, and, further, that these are from human blood. Such assertions were made at the trial, and were based chiefly upon the microscope and the micrometer. We are not disposed to deny their validity. Within the last five years the study, particularly of the measurement of the blood-corpuscles, has received much attention, and there are undoubtedly a few persons who can, in most cases, distinguish human blood from that of other animals.

The testimony of the experts at the trial has, on the whole, been creditable to them. No scientific facts asserted by them have been impeached, although their application to the present case may have been weakened. The trial will be found to show, however, some of the weak points in our expert system. Thus, the prosecution sent out Dr. Dana for the purpose of learning facts which would enable it to prove a difference between the "barn" and the "stomach" arsenic. He found some such facts, and can scarcely be expected to be entirely free from bias or enthusiasm in applying them. The prosecution has also got its experts to testify on the other side. The expert testimony is not and can never be perfectly impartial under such arrangements.

The trial has been conducted with so much care and ability that we can have confidence that, whatever the verdict, it will be a just one; and, in any event, it has brought to light scientific facts which will undoubtedly be of help toward securing the ends of justice in the future, and will perhaps deter people a little from using arsenic, at least, to gratify their criminal impulses.

A RUSSIAN REMEDY FOR DIPHTHERIA.

The Minister of Russia to the United States has recently written a letter to the *New York Herald*, recommending to the American public the benzoate of soda for the treatment of diphtheria. This drug, he states, has been used with great success by a number

of prominent Russian and German physicians, among whom are Professor Klebs, of Prague; Dr. Senator, of Cassel; Dr. Braham Braun, and Dr. Letzerich. The latter treated twenty-seven cases, eight of them being very malignant, with this medicine, and all recovered except one.

The remedy is given internally every two or three hours, and is also applied externally and used as a gargle.

It is rather strange that with so admirable a specific as this is claimed to be, the Russian government has been obliged to appoint a commission to investigate the epidemics of diphtheria which are ravaging the country with increased violence.

Similar remedies to the one suggested have already been used in diphtheria, and good results obtained; but nothing has ever received such universal endorsement as iron, chlorate of potash, and alcohol; nor is it likely that the eminent diplomatist's suggestion will produce any great change in the therapeutics of the disease. There have been dozens of drugs for which equally good results have been claimed; and, doubtless, Mr. Shishkin would have spoken more cautiously, or not at all, if he had made himself a little familiar with the history of specifics for diphtheria. His letter recommending benzoate of soda was doubtless written in a spirit of great benevolence; and, nevertheless, there is no particular good—indeed, there may be harm—in exciting hopes among the laity that a specific has been found. The doctor is expected at once to know about it and to cure his cases with it. It should be remembered, too, that medical journals exist wherever medicine exists, and that there is a constant interchange of views. No reliable discovery in medicine remains long without being published throughout the whole medical world.

The moral of this is, that Mr. Shishkin had better tend to his diplomacy, and let the doctors take care of diphtheria.

HOSPITAL SUNDAY.

Some time ago we advocated the plan of selecting a particular Sunday, and devoting all the contributions on that day to the hospitals. It was also advised that this should be supplemented by a hospital Saturday, so that all creeds and hospitals might receive the expected benefits. We are glad to announce that this plan has now been adopted. On the last Sunday of the year, and the Saturday preceding, collections will be made among churches, and also among individuals, for our local hospitals. The plan is comprehensive, and will not allow even those who prefer to stay at home, and praise the Lord at the domestic hearth, to escape the opportunity of charitable giving. Donors are to be allowed to signify which particular institution they wish their money to benefit. Those contributions which are left undesig-

nated will be placed in the hands of a committee, who will distribute them as their judgment dictates. The committee is composed this year of the Mayor, the President of the Chamber of Commerce, Postmaster James, Drs. Dix and Hall, and Messrs. H. E. Pellew, Cornelius Vanderbilt, and Robert Waller.

With the guaranty of such names, the success of the hospital Sunday plan is assured. It has for a long time been a popular and efficient method of raising money in London, and thus has the endorsement of past experience. Nearly all of our hospitals depend more or less upon charity, and concerted effort in their behalf will furnish to them much more relief. It will, in addition, attract the attention of the public to these institutions, and make their work and their wants more generally known. This is a consideration which alone will have much weight with those who wish well of the enterprise.

THE AMERICAN PUBLIC HEALTH ASSOCIATION.

It will be seen from our report of the recent meeting of this Association that the subject of yellow fever and of quarantine occupied their attention almost exclusively. The question of the exotic character of the disease was discussed at length. There is still, probably, a majority who believe in its always being imported; but the majority is smaller than it was last year, and the tide seems to be turning to the other side. There were no contributions to the clinical history or pathology of the disease. The value of quarantine was almost unanimously endorsed. The plan of adopting absolute non-intercourse found no defenders this year. Quarantine also was not claimed to be more than a useful auxiliary. The value of disinfectants during epidemics was not shown to be very great. In regard to prophylaxis, a general confidence was expressed in strict sanitary cleanliness to prevent the return of an epidemic. It was further claimed that if a case is notified early, the disease can, by prompt measures, be prevented from spreading.

We shall have occasion to comment upon the work of the Association more fully at another time.

NITRITE OF AMYL AS AN ANTIDOTE FOR CHLORAL.—The nitrite of amyl was recommended as an antidote for chloral by Dr. Coghill some time ago. A case illustrating its value for this purpose has been reported by Dr. Jas. McCullough, in the *Canada Lancet*. He was called to see an old lady one night, and found her pale, insensible, and almost pulseless. She had been taking chloral regularly as prescribed to her by a physician; but had, by accident or otherwise, taken an extremely large dose. Five drops of amyl were given her by inhalation; in a few minutes the extreme pallor gave place to a healthy glow, the respiration became deep, and the pulse fuller. She did not, however, regain consciousness, and in two hours became weak again. The amyl was repeated with the same beneficial results. After this, with the help of brandy, she completely recovered.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 22, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

THE PATHOLOGY OF YELLOW FEVER.

IN accordance with a previous promise to the Society, Dr. E. C. SEGUIN exhibited a number of slides prepared by Dr. H. D. Schmidt, of New Orleans, illustrating the pathology of yellow fever. After referring to Dr. Schmidt's paper in a recent number of the *New York Medical Journal*, he stated that the gentleman had performed thirty complete autopsies of patients dying of yellow fever, and had found that the chief characteristic of the disease was an hyperæmic condition of all the internal organs, notably those of the central nervous system. In connection with this hyperæmia was noticed an effusion of blood-pigment along the course of the blood-vessels. Another important lesion was a fatty degeneration of the essential elements of the various organs. In the brain, for instance, there was an unnatural amount of granular matter. The latter condition was quite difficult to make out in the specimens exhibited, but Dr. Seguin had no doubt that it was present in a marked degree in the fresh specimens as examined by Dr. Schmidt. The same changes were noted in the tissue elements of the liver, spleen, kidney, and in several sections of the sympathetic. Dr. Seguin stated that Dr. Schmidt had examined the living subjects, with great care, and with a view of discovering bacteria, but in every instance the results were negative.

DR. T. E. SATTERTHWAITE then presented a number of microscopic slides prepared by Drs. W. H. Porter and A. M. Jacobus, illustrating the lesions in the case of yellow fever, which was described at the meeting of October 8th.

The following is the result of the post-mortem examination by Dr. W. H. Porter, the history of the case having been previously published:

Pericardium and heart.—The pericardium was normal and contained about half an ounce of clear straw-colored fluid. The heart-substance was soft, flabby, and slightly fatty. Valves free and normal; weight, ten ounces. The cavities of the heart contained fluid blood of a dusky-brown color, without coagula.

Pleura and lungs.—Both lungs are pretty firmly attached to the chest-wall over a great part of their extent by adhesions of long standing; this condition was most marked on the right side. On section, both lungs were found congested and oedematous, but they exhibited no evidences of recent or old phthisis.

Spleen.—Soft and flabby; weight six ounces.

Kidneys.—Soft, congested, and yellowish-red in color. Weight of right, five ounces; of left, five and one-half ounces. Capsule normal in thickness and not adherent. Cortical markings a little wavy. In the pelves of the kidneys numerous bright red ecchymotic spots (such as are sometimes seen in acute scarlatinal nephritis).

On microscopic examination, the epithelium throughout the kidney was swollen and intensely granular. The tubes contained numerous small granular casts of a yellowish color. At the apices of the pyramids, the collecting tubes were nearly stripped of epithelium. The epithelium that remained was

intensely swollen, and even more granular than in other parts of the kidney. At several points, the tubes, and in some cases the blood-vessels were blocked with numerous little bright bodies of a uniform size, arranged in a regular manner at equal distances from one another. They looked at first like spherical bacteria, but on close examination with high powers (immersions 1-10, W. Wales, and No. 12 Prazmowski), the bodies proved to be mostly, if not wholly, rod-bacteria of the usual kind. They took a deep purple color, with hæmatoxylin.

The interstitial tissue was unusually well-marked, but it was difficult to say whether the change was due to the imbibition of fluid or to a new growth of connective tissue.

Bladder.—The bladder was absolutely empty and gave no indications of inflammation, except near the urethral orifice.

Vagina, Uterus, and Ovaries.—Upon laying open the vagina, it was found to contain a dark, dirty-looking fluid resembling decomposing blood; on extending the incision into the uterine cavity more of this dirty fluid blood was met with; also quite a large mass of clotted blood and mucus occupied the body of the uterus. The ovaries appeared to be normal. The right contained a corpus luteum of menstruation, only a few days old—it was said that she commenced to menstruate two days before death.

Stomach and Alimentary Tract.—The stomach contained a considerable quantity of light-colored fluid, probably in large part the milk and brandy taken before death. The whole surface was slightly congested and overlaid with a soft coating of mucus, which, when brushed off, showed many little minute black points representing black vomit matter; these little black points seemed to be at the mouths of the follicles. On microscopic examination all the coats of the stomach appeared a little thickened, but most markedly the mucous or follicular coat. Some of the little points were seen under the microscope. The epithelia of the mucous and peptic glands were thought to be abnormally granular. At the mouth of the follicles the epithelium was frequently wanting, and in them was seen in places lymphoid corpuscles. There was neither congestion of the stomach, nor extravasation of blood. The connective tissue seemed increased in amount.

Liver.—The vessels in the transverse fissure were free; the gall-bladder was not distended. The liver tissue was of a deep yellow color and had a fatty look. It was also deeply jaundiced, evidently the "yellow liver" of "yellow jacket." Weight 100 ozs. On microscopic section, the liver was found to be in an advanced stage of fatty degeneration. The fat-globules were abundant about the central vessel, but were also quite numerous throughout the whole extent of an acinus, and seemed to have been developed at the expense of the liver-cells, so that the cell was converted into a fat-globule, presenting an appearance that is seen in the so-called fatty infiltration. The other liver-cells were more granular than normal, and it was with difficulty that any nuclei could be recognized. There was also a marked increase in the connective tissue of the organ, and in places the separate cells were surrounded by new-formed connective tissue, as has been observed in syphilitic cirrhosis. At several points in the sections collections of bright little bodies of uniform size were seen, arranged in a regular manner, just as in the kidney. They were bacteria, and seemed to be in the blood-vessels.

The brain and spinal cord were removed, but exhibited no lesions to the naked eye. Unfortunately,

the fluid in which they were placed failed to preserve them.

It was stated by Dr. Satterthwaite that the presence of bacteria in the specimens could be explained in various ways, and he did not believe that it in any way sustained the notion that these organisms produced the disease. Accumulations of bacteria of similar appearance he had found in persons suffering from other diseases not contagious or infectious.

DR. AMIDON referred to a case of yellow fever which occurred at the New York Hospital in 1877. The patient came from Fernandina, and twenty-four hours after admission was seized with black vomit, dying soon after. The liver, stomach, spleen, and kidney were the only organs examined microscopically; in each of them, except the stomach, the tissue-changes were similar to those described by Drs. Seguin and Satterthwaite. No changes were found in the gastric-mucous membrane, notwithstanding black vomit had existed. There were no evidences of hemorrhages, no particular congestion of the vessels, and no change in the gastric epithelium. In the kidneys very many of the tubuli were clogged with desquamated epithelium and pigmented granules. In the liver there was present fatty degeneration of the periphery of the acini.

REMOVAL OF GANGRENOUS LUNG.

DR. LANGE presented a portion of the gangrenous lung of a woman, aged forty years, who, shortly after her confinement, was attacked with empyema, accompanied with a temperature of 104°, and the expectoration of gangrenous material. Dr. L. saw the case in consultation, and performed thoracentesis in the ninth intercostal space. About a quart and a half of fluid was evacuated, after which a mass presented itself into the wound and was accordingly removed. This proved to be a portion of the gangrenous lung. At the time of reporting the case the woman was still in a very critical condition.

SYSTO-SARCOMA OF TESTICLE.

DR. LENTE presented a sarcoma of the testicle, which he removed by operation from a lad aged twenty years, and a resident of Newburg. The growth first showed itself about a year ago, and gradually increased, until it measured seventeen inches in circumference. A portion of the scrotum, which contained an abscess, was removed with the tumor. The patient made a good recovery. The tumor was composed of fibrinous and cartilaginous masses, and presented a very characteristic appearance of sarcoma.

DR. KRYES referred to two similar cases in which he had operated several years ago, and in which the disease had reappeared in the retro-peritoneal glands.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, November 6, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8 P.M., and the minutes of the last stated meeting were read by the Secretary, DR. H. T. HANKS.

The Librarian, DR. LAURENCE JOHNSON, reported that since the last stated meeting 509 bound volumes, 158 unbound volumes, 442 pamphlets and medical journals, 11 maps, and 3 *fix-simile* letters had been donated to the library. The bound volumes included

those presented by Dr. Abram Dubois, and those donated at the last stated meeting by Dr. Purple.

The Corresponding Secretary, Dr. JOHN G. ADAMS, made a report in which brief reference was made to the late George W. Callender, F.R.C.S., F.R.S., and

THE DEPARTMENT FOR DISEASES OF CHILDREN IN MT. SINAI HOSPITAL.

The paper for the evening was read by Dr. A. JACOBI, and consisted in a report, with epicritical remarks and specimens, of a series of interesting cases which had been under his observation in the department for diseases of children in the Mt. Sinai Hospital as permanent physician in the service. The service was originated in March, 1879, and although since the organization the number of patients had not been large, yet a fair proportion of the cases had been highly interesting. After giving the number of cases of general febrile diseases, diseases of the respiratory organs, diseases of digestive organs, of the nervous system, chronic diseases, such as syphilis and rachitis, diseases of the skin, and neoplasms, etc., he reported in detail several cases, the more important of which were the following:

Matilda W—, set. 8 years; admitted March 30th. *Unilateral inflammation of the tonsils.* A rare affection, unless the result of local irritation. Usually not purely inflammatory, but infectious in character.

Victoria B—, set. 12 years; admitted March 18th. *Adenitis; otitis media; enlarged spleen; chronic pneumonia; gastric catarrh; cardiac disorders; suppurating adenitis.* As a rule, diseases of childhood are simple and uncomplicated, and, for that reason, a correct diagnosis can be made with greater facility than in adults. In this respect the case was exceptional, and presented a number of complications which, as a rule, are seen only in adults.

Philip B—, set. 10 years; admitted March 12th. *Endocarditis, articular rheumatism, and chorea minor* occurred simultaneously. The usual order is articular rheumatism, then rheumatic endocarditis, and after some time, chorea minor. In the rheumatism of infancy and childhood there are many cases in which diagnosis of endocarditis is made because of a murmur, and yet that murmur will disappear, sometimes, when the severity of the other symptoms subsides.

Typhoid fever. Most of the severe cases presented the characteristics of the average typhoid fever of infancy and childhood; the symptoms were irregular in character, and not very marked. In the case of Louis S—, set. 9 years, and admitted June 24th, the anatomical conditions were exactly the same as we could expect to find in the adult. The general rule, however, holds good that subjective symptoms and some objective, particularly the high temperature, are of what one would be led to expect from consulting books alone. [See MEDICAL RECORD, vol. xvi., Nos. 7 and 18.]

Dr. Jacobi presented a specimen in which there were marked ulcerations and perforation in the intestine, and yet the patient did not have any diarrhoea.

Thomas C—, set. 3 years and 9 months. *Intra-uterine tumor.*

Lena H—, set. 8 years; admitted March 10th. *Spiditis; repeated attacks of peritonitis; recovery.* he child was discharged in July.

Mary C—, set. 3 years; admitted May 28th. *Multiple congenital lipomata.* The tumors were situated in the lumbar region, the gluteal region, and the scapular region. That in the lumbar region was upon both sides of the spinal column, more to the left than the right, and was five inches by four inches; the

one in the scapular region was the smaller of the remaining two, and was two or three inches in diameter. An operation was performed for the removal of the largest tumor. The case, however, without fever, but with progressive emaciation and increasing hyperæmia, lingered until July 2d, and then terminated fatally.

Fannie C—, set. 3 years; admitted September 4th. *Typhoid fever complicated by catalepsy.* In the course of the typhoid fever, whooping-cough developed. On the 28d of September it was hoped she was on the way to recovery, without further complication. On that day, however, the first slight spasm of the eyelids was noticed which preceded the development of well-marked catalepsy. On the 15th of October the child was convalescent.

Flora McD—, set. 3 years; admitted March 6th. *Chronic inflammation of the knee-joint; free incision into the cavity and scraping out the granulations; operation and dressings done under Lister; carbolic acid and thymol; plaster-of-Paris splint; healing of the wound nearly complete, July 2d.*

At the close of Dr. Jacobi's report the PRESIDENT remarked as follows: The duty which those connected with hospitals and public institutions owe to the profession at large is one which, I think we must all agree, is very much neglected by many who hold these public appointments. Such positions, in connection with our hospitals, give large opportunities for observation and accumulation of experience which those in private practice do not have; consequently they are acquiring knowledge which should belong, in propriety, to the profession. While these appointments involve extra labor and care, they bear with them extra rewards, and the duties are of a kind the rewards of which all should acknowledge.

Another reason why the profession should have opportunity to become more familiar with hospital practice by the aid of reports, such as that to which we have listened this evening is, that there is an immense amount of medical knowledge which, from the very force and nature of the circumstances, cannot appear in medical works. Much can be done to fill this missing page by those who are brought into personal contact with hospital practice, as illustrated by the labors of Charcot, Troussseau, Louis, Graves, Stokes, and many others, who acquired a vast deal of knowledge with regard to methods of physical diagnosis, with regard to modes of operating and skill in the application of therapeutics, which has never been transmitted through the writings of such men, and which never could be transmitted, and which were only known either through personal contact, or through tradition.

It is the province of such an association as this to supply that want; and it is its province to bring out all that kind of knowledge, as far as it is possible to do so, which is not otherwise set forth in systematic treatises and medical works.

I will ask the Academy to pardon me for making one more remark, and that is, that diseases of children occupy a large part of the time of general practitioners, and they constitute a class of affections which are of very great importance. I might point out a great many reasons why they deserve much more special study and care and attention than they now receive.

In the first place, the seed of hereditary disease is first developed in childhood, and here, if ever, are such diseases to be met successfully, and, if possible, obliterated; for in after-life it is too late, as a rule, to deal with them for their eradication.

In the second place, the development of those diseases is simple in character, unmodified by previous habits, by former disease, or by former treatment; consequently, they constitute a class which possesses more than usual interest.

It is, therefore, with great pleasure and pride that I feel we have been the means of bringing out the information we have received this evening. I had made preparations to have a full debate at this time, but my impression is that the paper should be first printed, and then carefully studied, and when that is done, the cases and the highly scientific remarks upon them may give rise to a valuable and interesting discussion, and one which will do the Academy great credit.

On motion, the discussion was postponed until an evening should be assigned by the President.

The President then announced the reception, through Dr. Ellsworth Eliot, of \$25 from a friend of the Academy, to be expended in the purchase of books, and the Academy then adjourned.

AMERICAN PUBLIC HEALTH ASSOCIATION.

Seventh Annual Meeting at Nashville, Tennessee, November 18-21, 1879.

(Special Report for THE MEDICAL RECORD.)

FIRST DAY—WEDNESDAY, NOVEMBER 18TH.

The American Public Health Association met at 12.30 P.M., in the Hall of the House of Representatives. About two hundred members were present. President J. L. Cabell, M.D., in the chair.

A NATIONAL MEDICAL LIBRARY.

After an opening prayer, and an announcement of the names of the members present, the committee appointed a year ago to memorialize Congress in regard to the publication of the index catalogue of the National Medical Library, made its report. Dr. R. W. Mitchell, its Chairman, stated that, at the last meeting of Congress, \$20,000 had been appropriated for printing and binding the first two volumes of this work. As the complete work would embrace ten or twelve volumes, however, it was necessary that further appropriations be made, and it was advised that the committee be continued.

In connection with the report, Dr. J. S. Billings stated that the Army Medical Library was now the largest exclusively medical library in the world, embracing 50,000 volumes, and as many pamphlets.

At the close of the report, a number of invitations from private and public citizens of Nashville were announced and acknowledged. It was voted that, in subsequent discussions, each member should be limited to ten minutes. Dr. E. M. Hunt, as Chairman of the Publication Committee, stated that the volume of the proceedings of the last annual meeting would soon be published.

COL. GEORGE E. WARING, of Newport, R. I., then read a paper on

THE DRAINAGE AND SEWERAGE OF CITIES.

Col. Waring referred to the expense and imperfections attending the present sewer system. As a remedy he proposed the following plan: There should be two systems of drainage in every city; one for carry-

ing off the storm-water, the other to remove the excreta, etc., from the houses and other buildings. The storm-water should be carried off by superficial drains that can be easily cleaned. Even surface-drainage of storm-water might do. The sewers for house-drainage should have a minimum diameter of six inches, and they should not exceed that size until they had accumulated a sufficient flow, at the time of greatest use, to fill them half full. The upper end of each branch sewer should have a Field's tank for flushing it at regular periods. The house connections should be without traps, and there should be a continuous pipe leading to the roof of the house. By such arrangements there would be no such thing as sewer-gas.

In the discussion that followed, the plans suggested by Col. Waring were in the main endorsed.

DR. A. AMES said that Col. Waring had not sufficiently brought out the question of the final disposal of the sewage matter.

DR. E. M. HUNT thought that the fulness of a sewer was not the thing to be depended on in determining its proper size. This should be regulated also by the velocity of the current, and the hydraulic pressure.

EVENING SESSION.

At the evening session Governor Marks, Dr. E. M. Wight, President of the Tennessee Medical Society, and Mayor Thos. Kercheval delivered short addresses of welcome.

DR. CABELL then delivered the

PRESIDENT'S ANNUAL ADDRESS.

This was very long, and consisted of an elaborate historical review of the organization of the National Health Board, with a defence of its course and work. Some facts concerning the work of the Havana Yellow Fever Commission were given. It was found that yellow fever had been endemic in Havana since 1761, and that it was thought to have been imported at that time from Vera Cruz. The sanitary condition of the Cuban sea-port towns, the commission said, is wretched, the death-rate amounting sometimes to forty or fifty per thousand. The pathological part of the commission's work is yet unfinished. Dr. Sternberg has, however, discovered one characteristic pathological change, viz.: a fatty degeneration of the white blood-corpuscles. He was unsuccessful in inoculating any lower animals with yellow fever, and had been unable to isolate any *contagium vivum*.

President Cabell gave a full history of the *Ganges* refrigerating ship. He discussed the subject of internal quarantine regulations, and also of international quarantine.

He cited the following propositions as having been established by last summer's experience:

1. That in yellow fever unrestricted family intercourse is one of the most fruitful means of spreading the infection.

2. That when prompt notice is given of a case imported into a previously uninfected locality, proper measures energetically employed will generally suffice to arrest the disease.

3. That even in case of an epidemic it is possible, at least in the smaller places, by very rigorous efforts, to stamp out the disease.

4. That a properly directed quarantine may be an effectual security to sea-ports and inland towns against the introduction of contagious diseases; and that the policy of absolute non-intercourse is unnecessary.

SECOND DAY—NOV. 19TH.

At the opening of the morning session 36 new members were elected. The Association accepted an invitation to a reception by Mrs. James K. Polk.

DR. CHAS. F. FOLSOM read a paper by Elliott C. CLARK, C.E., on

CITY SCAVENGERING IN BOSTON.

Scavengering includes removal of house-effects, ashes, house-dirt, offal; also the cleaning of streets, privy-vaults, cesspools, etc. Such garbage, in Boston, is all removed in properly constructed wagons. It is taken to the department depot and dumped on platform cars. These take the garbage out of the city, where it is sold to the farmers. The sales last year amounted to \$28,000; the cost of collecting to \$76,000. One hundred and eighty-five miles of streets are cleaned every week, some of the streets being swept every day. The work on the whole is very satisfactorily done.

Dr. H. M. THOMPSON, of New Orleans, read a paper on the

DISPOSAL OF GARBAGE AT NEW ORLEANS.

There are three ways, he said, in which garbage may be disposed of. It may be cremated, or dumped, or transported from the city. In New Orleans the dumping system had long been employed, and with very bad results. In considering the question of reform, cremation was thought too expensive. They adopted, therefore, the plan of having all the garbage put on scows, towed down the river two miles, and then dumped into the current. This plan had worked admirably.

The discussion that followed the above papers was shared in by a large number of members. There was considerable testimony to the difficulties of making a profitable disposal to farmers of garbage and house-effects.

Dr. E. H. JAMES, Secretary of the Association, read a lengthy paper by Dr. E. G. Janeway, of New York, on

MUNICIPAL SANITATION.

Much of the space was devoted to the subject of tenement-houses and their proper construction. The recent law passed in New York concerning this matter was dwelt upon very favorably. Dr. Janeway's paper also discussed the subject of contagious diseases. In regard to their sporadic origin he did not consider the matter settled, and recommended the question to country doctors, as being best situated to obtain facts bearing on the matter. The writer did not think that the refuse from slaughter-houses was calculated to develop scarlet fever. He did not believe yellow fever to be contagious. The paper concluded with proposing a series of resolutions containing suggestions to health boards for securing more uniform and accurate vital statistics.

AFTERNOON SESSION.

Dr. A. L. GIBSON, U.S.N., read a paper upon the subject of

THE PROTECTION OF THE INNOCENT AND HELPLESS FROM VENEREAL DISEASE.

The paper was excellently written, though somewhat rhetorical for a scientific contribution, and was incomplete in the matter of facts. It advocated the establishment of some form of regulation of prostitution. It was listened to with much attention. At

its close several members expressed their approval of its sentiments.

It was voted that a committee of five be appointed to consider the subject of the address and report to the Association. Drs. A. L. Gibson, W. B. Griffith, J. McKeller, Sternberg, and P. H. Bailhache were appointed.

EVENING SESSION.

The evening was devoted chiefly to discussing the question of the

EXOTIC ORIGIN OF YELLOW FEVER.

Dr. A. A. WOODHULL, U.S.A., in an elaborate paper, claimed that in the epidemic at Savannah, in 1876, the yellow fever did undoubtedly originate at Savannah. Frost, Dr. Woodhull believed, might extinguish an epidemic, but would not necessarily de-vitalize the fever cause.

Dr. T. J. TYNER read a paper on

THE ETIOLOGY OF YELLOW FEVER IN MEMPHIS.

He claimed that it arose there as well as in other American cities *de novo*; or, admitting it to be exotic, he was sure its spread was absolutely dependent on local conditions.

A number of members shared in the subsequent discussion. They were about equally divided on the subject on the exotic character of the disease. Drs. Early, Hargis, and Wise were believers in the indigenous theory; Drs. Campbell, Austin, and Elliott were against it. Dr. Elliott contradicted the conclusions of Dr. Woodhull in regard to the Savannah epidemic.

THIRD DAY—NOV. 20TH.

Twenty-four members were elected at the opening of the morning session.

The following officers were then chosen for the ensuing year: *President*, Dr. John S. Billings, U.S.A.; *First Vice-President*, Dr. Choppin; *Second Vice-President*, Dr. R. C. Kedzie; *Treasurer*, Dr. J. B. Lindsley, of Nashville, Tennessee.

It was voted to hold the next annual meeting at New Orleans.

During the balloting for officers, a paper was read by Dr. W. H. BREWER, President of the Connecticut Board of Health, on the subject of

ROTTEN WOOD.

Dr. BREWER related experiments which he had made, showing that wood of any kind, when left in still water, will produce low putrefactive changes. The water dissolves out the nitrogenous constituents of the wood, and these decompose. In running water various fungi become attached to the wood.

Dr. J. D. PLUNKET, President of the Tennessee Board of Health, read a paper on

COTTON AS A FOMITE.

A history was given of the evidence upon the question, and it was concluded that cotton was, from its porous and flocculent nature, particularly adapted to become a carrier of infectious disease. Notwithstanding this, it was a remarkable fact that no case of yellow fever has been recorded as having originated from contact with cotton. Whether this were accidental, or due to germicide virtues in the cotton-oil, could not be determined. Meanwhile, however, cotton should be treated as dangerous.

A paper upon

THE LATE MEMPHIS EPIDEMIC

was read by DR. G. B. THORNTON, President of the Memphis Board of Health.

He stated that the prevailing opinion among Memphis physicians was, that the yellow fever was not imported into Memphis. Dr. Thornton thought himself that the balance of facts was on that side. In regard to the alleged filthiness of the city, he said that though not in the condition it should have been in the beginning of the summer, it was quite as clean as many other cities, and that the lack of perfect sanitary arrangements was largely unavoidable. At present he considers the city as clean as any in the country. He did not think that, when yellow fever was firmly established, either disinfection or isolation could eradicate it.

He thought, however, that by thorough disinfection and proper local sanitation during the winter, the disease could be driven away.

At the conclusion of the paper, the following

EXECUTIVE COMMITTEE

was elected: Dr. C. B. White, New Orleans; Dr. J. L. Cabell, Virginia; Dr. E. M. Hunt, New Jersey; Dr. J. D. Plunket, Tennessee; Dr. C. F. Folsom, Massachusetts; Dr. A. L. Gihon, U.S.N.

EVENING SESSION.

The session opened with a paper on

THE YELLOW FEVER QUARANTINE OF THE FUTURE,

by Dr. H. F. Campbell, of Augusta, Ga.

DR. CAMPBELL argued for a strict quarantine during epidemics, on vessels, railroad-trains, etc. Never, he said, let the latter come nearer than twenty miles to the infected spot without changing cars; carefully disinfect the baggage, etc., but let the individual pass, even if the fever is upon him.

At the conclusion of the paper, Dr. Holliday, of New Orleans, said that at present all New Orleans physicians were agreed upon the value and necessity of a quarantine that did not imply absolute non-intercourse. In regard to the exotic character of the disease there were still differences; many thought that the disease had now become endemic.

DR. J. H. RANCH reported a case seeming to show that cotton had carried the yellow fever contagium.

DR. A. N. BELL made a strong appeal to the Association to extend every possible aid to Memphis.

JUDGE J. W. CLAPP said he thought that they should all be humiliated that the Association, after three days' discussion, was no nearer any satisfactory conclusions than before. Judge Clapp defended Memphis from the charges of neglect and filth which had been made against it.

DR. BAILEY did not believe in quarantine for yellow fever, nor in the exotic character of the disease.

DR. PETERS, of New York, thought that the conveyance of yellow fever was more like that of typhoid fever than anything else.

FOURTH DAY—NOVEMBER 21ST.

At the Morning Session 150 new members were admitted. The following papers were read: "Quarantine in Arkansas in 1879," by R. G. Jennings, of Little Rock; "Camps and Depopulation at Memphis, 1879," by John F. Cameron, and "Yellow Fever in New Orleans," by S. S. Herron. Dr. Holliday, of New Orleans, read the report of the Committee on Subjects Submitted by the American Association, recommending a national quarantine of vessels to

prevent the importation of the first case of yellow fever; the establishment of quarantine hospitals; the Governments, national, State, and municipal, to make provision for the removal of unaccustomed persons; the exclusion of upholstered furniture, rugs, and carpets from railroad cars during epidemics. The report further shows the important results which have sprung from the incorporation of the National Board. President Cabell announced the appointment of the following Advisory Council: Alabama, R. D. Webb; California, Henry Gibbons; Florida, S. C. Cobb, of Pensacola; Georgia, H. F. Campbell; Illinois, J. H. Ranch; Indiana, J. F. Hibberd; Mississippi, Wirt Johnston; Louisiana, D. C. Holliday; Maryland, James A. Stewart; Massachusetts, Ael Ames; Pennsylvania, Henry Hartshorn; Ohio, T. C. Minor; Missouri, Dr. Homan; Rhode Island, E. M. Snow; Tennessee, J. W. Clapp, of Memphis; Virginia, L. L. Joyner; Michigan, H. B. Baker; West Virginia, James E. Reeves; District of Columbia, Dr. Toner; New York, Dr. Harris; North Carolina, F. F. Wood; South Carolina, R. Leiby; Connecticut, C. W. Chamberlain; New Hampshire, L. F. Conn; Vermont, H. D. Holtar; Texas, Dr. Rutherford; Wisconsin, E. L. Griffin; Minnesota, W. Hunt; New Jersey, L. Lilly; Arkansas, A. L. Breyacher; Kentucky, Pinckney C. Thompson; Delaware, Dr. Bush; United States Army, Dr. McParlin; United States Navy, B. F. Gibbs; National Board of Health, Stephen Smith; Commissioner of Education, Gen. John Eaton.

President Plunkett, of the Sanitary Council of the Mississippi Valley, has appointed the following committee to arrange plans of operations between all the State Boards of Health in the Union: Dr. Hewett, Dr. Pinckney Thompson, of Kentucky; Dr. Griffin, of Wisconsin; Dr. T. A. Atchison, of Tennessee; Dr. Choppin, of New Orleans; and Dr. Rice, of Mississippi.

EVENING SESSION.

At the night session, resolutions were adopted to the effect that the present National Board of Health has been of such service to the country that it is not expedient to make any change in its organization; that the investigations by the board are approved, and should be continued to the prevention of other diseases as well as yellow fever; that Congress should appropriate sufficient funds to enable the board to secure talent and apparatus; that no change in the existing quarantine law should be made without careful consideration; that it is expedient for the National Board to call an International Congress for the discussion of quarantine; that it is clearly the duty of the Government to establish a quarantine station at the mouth of the Mississippi River. The Association then adjourned to meet in New Orleans next November.

THE NEW YORK NEUROLOGICAL SOCIETY.

Stated Meeting, Nov. 3, 1879.

DR. J. C. SHAW, PRESIDENT, IN THE CHAIR.

The Society was called to order at 8.20 P.M., and the minutes of the previous meeting were read by the Secretary, DR. W. J. MORTON.

MISCELLANEOUS BUSINESS.

DR. SPITZKA presented the resignation of Dr. J. C. Davis, which was accepted.

DR. E. C. SEGUIN moved a reconsideration of the resolution presented by Dr. Hammond, at the last stated meeting, regarding the Consulting Board to the Insane Asylum in the Department of Public Charities and Correction.

The motion was seconded by Dr. L. C. GRAY, and adopted by the Society.

On motion by Dr. SEGUIN, the Secretary was instructed to correspond with the Commissioners of Charities and Correction, and respectfully request information regarding the functions of the Consulting Board.

SUBACUTE MYELITIS.

THE PRESIDENT then exhibited microscopical sections from the spinal cord of a case of subacute myelitis that had the following history:

A female patient, *æt.* 50, he saw in consultation May 26, 1879. The supposed cause of her illness was catching cold several months previously. Her temperature was 98½° F., and pulse, 100. She suffered from pain and soreness in the muscles, and about the chest from a sense of tightness. There was some wasting of the muscles of the extremities; loss of faradic reaction; neither vesical nor rectal disorder. At the end of two weeks her general condition was about the same, but was unable to speak; although conscious, yet was not aphasic. The case terminated fatally soon afterwards, without special changes in the clinical history. At autopsy nothing abnormal and relating to the nervous system could be seen with the naked eye. The spinal cord was properly hardened, and, on examining microscopical sections, the cervical and lumbar regions were found to be the seat of lesion, which consisted in atrophy, pigmentary and fatty degeneration of the ganglion cells, and in some of them vacuoles could be seen. The medulla had not yet been examined.

A CONTRIBUTION TO THE PATHOLOGY OF ACUTE CENTRAL MYELITIS, BY DRs. E. C. SEGUIN AND E. K. HENSCHEL.

DR. E. C. SEGUIN reported the case, which had a history briefly as follows: A male patient, *æt.* 33, unmarried, originally of good constitution, infected with syphilis, not conscious of straining his back or of catching cold, at 4.30 P.M., Oct. 8th, was taken with pain in the lumbar region, located over the kidneys. Soon after he made ineffectual efforts to micturate. At 9.30 P.M. he made ineffectual efforts to empty his bladder, and was not able to sleep. At 11.30 P.M. he had great desire to micturate, and when he arose from his bed he found that he was unable to stand. There was tingling in his toes and feet, and marked *anæsthesia*. The sensation at the knees was apparently perfect. He was restless, and his anxiety was great during the after-part of the night. Pulse, 120; temperature, 100° F.

Oct. 9th, 3 P.M.—*Anæsthesia* had extended upward to the level of the umbilicus; paralysis complete below. Catheter was used. An enema of soap and water was retained. At 8 P.M. he suffered from much pain in the sides of abdomen, lower part of thorax, and epigastrium. No symptoms referable to the hands or arms. Lower extremities absolutely paralyzed and *anæsthetic*. Spine only slightly tender in its medio-dorsal region. Extremely restless; no *lymphæmæ*.

Diagnosis: Acute myelitis with softening, involving the entire thickness of the cord at a point in the lower dorsal region. The attack bore all the clinical characters of an acute inflammation from exposure to cold. He then suffered from a distressing sense of con-

striction about the body. On the fifth day of his sickness a strong faradic current was applied, one pole high in the rectum and the other over the abdomen, and an evacuation of the bowels obtained. In the third week there was notable atrophy of the muscles; and the level of the *anæsthesia* was at the ensiform cartilage. There was fever throughout the course of the disease, and the patient lived two months after the first development of symptoms. A remarkable fact, relating to temperature, was that the temperature of the toes was higher than that of the body for the first few days.

Autopsy less than twenty-four hours after death: Enormous bed-sores over the sacral region. The spinal cord measured 12½ inches from the point of section, in the lower cervical region, to the *filum terminale*. The lower dorsal region was the seat of marked swelling and evident softening. The cord was carefully hardened, first in absolute alcohol, and then in bichromate of potassa; and, when examined microscopically, presented the following lesions: Descending degeneration of the posterior lateral columns; ascending degeneration; nearly complete destruction of the anatomical elements at the seat of the greatest softening. Several ganglion-cells contained vacuoles; vacuoles apparently quite globular, and contents unaffected by reagents. The coats of the blood-vessels were thickened. Granular bodies—whether the granulation corpuscle or not, was undecided. Neuroglia thickened. Acute central softening.

Dr. Seguin discussed at some length the significance of the clinical history and its relation to the pathological lesions.

DR. E. C. SPRITZKA spoke of the remarkable and altogether exceptional rise of temperature, aside from that of the toes being higher than that of the body for the first few days; namely, the rapid rise which occurred immediately before death, with general rise of temperature in the whole body, showing that a sympathy existed between the physiologically separated portion of the cord and the entire central nervous system; and that the separated portion was endowed with a certain amount of vaso-motor influence.

The granular bodies to which Dr. Seguin referred he regarded as different from the ordinary granular pus-corpuscle, and deserved the name of granular cells. The so-called granular cells were frequently nothing but transverse sections of axis-cylinders with disintegrated myeline. He had noticed them especially in chronic myelitis. With regard to the explanation of the existence of these granular bodies, he supposed them to be leucocytes which had taken up a marked amount of pabulum in the shape of disintegrated myeline.

DR. BIRDSALL asked whether the vacuoles were inside of the ganglion-cells, or outside in the perivascular spaces; and then followed a discussion regarding their meaning, the origin of spider-cells, etc.; after which, the Society adjourned.

INTERNATIONAL CONGRESS OF HYGIENE.—The third meeting of this Association will be held at Turin in April, 1880, under the patronage of the Italian Government. This Congress meets every other year, the previous sessions having been at Brussels and Paris. The work will be done in ten sections, which will include hygiene as applied to schools, to agriculture, manufactures, architecture, and so forth. The subject of regulating prostitution will also be brought up.

Correspondence.

MEDICAL ETHICS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In a correspondence published in your issue of Nov. 22d, Dr. Piffard, Secretary of the late Board of Censors, claims that your reporter was in error when he made the statement that the Censors reported that the Society lacked "legal power to take action with reference to certain cases of violation of the code," "as the careful perusal of the Censors' report will show." Your reporter has received the published minutes of the seventy-fourth annual meeting of the Medical Society of the county, which contain the Censors' report, and finds on page 31 the following consecutive sentences:

"The existence in this county of a considerable number of so-called regular physicians who are not members of this Society. . . . These gentlemen appear to enjoy the same benefits that the laws of the State intended should pertain only to members of county societies. . . . On the other hand, they are not amenable to the regulations of the Society, and many of them are beyond the reach of prosecution for breach of the code of ethics." Yours truly,

W. M. CARPENTER, Asst. Secretary.

SPEEDY CURE OF NASAL POLYPI.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The painless method of removing nasal polypi, never before made public by the originator, is an apology for taking a small space of your valuable journal.

Mr. G. M—, æt. 60, ten years ago applied to me for relief from a soft polypus in the left nostril. I proposed evulsion; but not liking the proposition, he left, and I never heard of him until last May, when he returned with another polypus in the same nostril. I advised evulsion once more; he declined it again, and desired me to cure him the same way as did Dr. G. Ceccarini the first time (ten years ago). On inquiry, Dr. C. kindly answered: "The medicine which I use for removing nasal polypi is four or five drops of pure acetic acid injected with an hypodermic syringe within the body of the polypus once only, very seldom twice; the polypus generally drops off within three or five days without discomfort or pain. Disinfecting lotion will correct the offensive odor." With this information, on the 12th of August, in presence of my friend Dr. J. L. Little, I injected the polypus with six drops of chemically pure acetic acid, and instantly we saw the discoloration of it from red to white. Business preventing him from returning, I could not observe the daily progress; but when he called on September 2d, he had only a small portion of it yet adhering to the middle turbinated bone, the other having dropped off the fourth day after the injection; this remaining portion was injected with four drops of the same acid, and on the third day dropped off, leaving his nose clear, without sore or a vestige of it. Neither of the two operations were followed by any unpleasant symptoms, save a slight smarting from the pricking by the needle when the acid was injected. The offensive odor arising from the decaying mass was corrected by a weak carbol-

ized wash. The long interval from the destruction of the first, and the appearance of the second—ten years between—precludes the possibility of this last being a portion of the first, but a new one.

Respectfully yours,
S. CARO.

17 WEST NINTH ST., N. Y.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 16th to November 22d, 1879.

BAILY, E. J., Lient. Col. and Surgeon; Medical Director of the department. Granted leave of absence for one month. S. O. 157, Dept. of the Columbia, November 3, 1879.

SMITH, R. E., 1st Lient. and Asst. Surgeon. Granted leave of absence for four months, from Dec. 1, 1879. S. O. 250, A. G. O., November 15, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department for the two weeks ending November 22, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 15, 1879...	0	15	42	2	84	29	0	0
Nov. 22, 1879...	0	14	43	2	102	51	0	0

ST. BARTHOLOMEW'S HOSPITAL.—The death of Mr. Callender leaves a vacancy on the visiting staff of St. Bartholomew's Hospital which will probably be filled by Mr. Willett, now senior assistant-surgeon.—*Brit. Med. Journ.*

LADY MEDICAL STUDENTS.—There are thirty-seven students at present in the London Medical College for Women, and the institution is considered to be in a very flourishing condition.

HOMŒOPATHIC INSANE ASYLUM.—Plans for the erection of the third building of the New York State Homœopathic Insane Asylum have been approved, and work upon it will at once be begun.

SCARLET FEVER IN ILLINOIS.—Owing to the scarlet-fever epidemic which is prevailing in Springfield, Illinois, the Local Board of Health has ordered the public schools to be closed until the 1st of January. They have also adopted a resolution recommending that no public funerals be held in churches or private residences. There are said to be about 500 cases of the disease in the city. It prevails in a mild form.

TESTING THE AUDIPHONE.—This instrument, which was described in our columns several weeks ago, has recently been subjected to some careful tests amongst deaf-mutes. It was found that some satisfactory results were obtained amongst the congenitally deaf; those in whom there was an incomplete development of the auditory apparatus rather than complete destruction of some of its parts.

THE NEW YORK FLOWER CHARITY.—This Society has, during the past summer, distributed over one hundred and forty thousand bouquets amongst the various charitable institutions of this city. We are glad to learn that the Society at times includes illustrated papers in its articles of distribution. It is to be feared that the average hospital patient prefers the Police Gazette to the most beautiful rose.

MOUNT SINAI HOSPITAL.—This hospital has recently received several large donations, among them one of \$25,000 from Michael Ries, of California. The hospital building has been renovated and repaired.

DETROIT MEDICAL COLLEGE.—The Detroit Medical College has adopted the three years' graded course of study, and an entrance or matriculation examination for all candidates for graduation. Each session is lengthened to six months. The new regulations go into force in the session of 1880-81.

TREATMENT OF GONORRHOEA.—In an article on gonorrhoea, Dr. G. W. Stoner, of the U. S. Marine Hospital Service, states that there is no one thing so useful as sulphate of zinc in the proportion of two or four grains to the ounce of rose-water. The mixture is still more effectual if an equal or somewhat smaller amount of tannic acid be added.—*Buffalo Med. and Surg. Jour.*

A THERAPEUTICAL CONGRESS.—In a paper read before the Canada Medical Association, Dr. Playter referred to the present lack of uniformity in therapeutical teaching and practice; he spoke also of the indefinite and often contradictory opinions that still prevail in regard to the properties of many drugs. In order to remedy this unsettled condition of affairs, it was proposed that the various medical associations in this country and Great Britain—and other countries, if possible—appoint committees, who should meet in a general conference and try to secure some more uniform and harmonious conclusions upon the subject, especially of therapeutics.—*Canada Lancet.*

DR. WILES, of Guy's Hospital, has been appointed physician to the Duke and Duchess of Connaught, in succession to Dr. Murchison, deceased.

MEDICAL RESEARCHES.—About \$15,000 was appropriated by the British Medical Association at its last meeting, to aid in prosecuting various medical researches. Among the special objects are: \$250 given to F. Ogston, for the research into the relation between bacteria and surgical diseases; \$250 to Dr. McKendrick, for investigation on anaesthetics; \$120 to Dr. Crocker, for researches upon the physiological action of alcohol, with special reference to its elimination, etc.

In this way the money has been dealt to about a dozen eminent men, who will investigate and make reports upon the subjects assigned them. The plan is certainly an admirable one, and deserves imitation with us.

DIPHTHERIA EPIDEMICS.—A very violent form of diphtheria is reported to have broken out in the entry about London, Ontario. It is known, locally, as "black tongue."

A remarkable story from Vermont, concerning the spread of diphtheria is going the rounds, and seems to be pretty well vouched for:

A few weeks ago a family of three children in St. John, Vt., had the diphtheria, but made good recovery. After they had been well and about the

streets for two weeks, they went to Fairfield and visited in four families. At that time there was no diphtheria in Fairfield, but since then it has broken out in each of those four families.

The ravages of diphtheria in Russia have for several years been very great. It is reported that this fall the disease has continued to increase. In Odessa, since May last, 76 per cent. of the children have died from the disease. In other places half the infant population has perished in the same way. Eleven districts in all are now infected, and the condition of affairs is so serious that the government has appointed a special commission to investigate the causes of the epidemic.

PRURITUS VULVAE.—Dr. S. L. Parmelee, of Watertown, N. Y., writes: My attention has been called to an interesting case reported by Elizabeth M. Cushier, M.D., in the last Record of November 8, 1879, of an epithelioma of vulva, and she asks the question if the long-existing pruritus could have had any relation as cause for its appearing, or whether the removal of it by operation could have produced such changes as to cure the pruritus.

In alluding to the case, I only wish to draw attention more directly to the pruritus vulvae, its general cause and cure.

In my mind, in the case reported we have a not uncommon cause in the condition of the cervix which was found. The patient, although sixty years of age, had "the membrane of cervix of a deeper color than the vaginal membrane, and a slight erosion, and a small amount of thin yellow fluid (sero pus) escaping from the cervix with a sensitiveness of the canal on the passage of a probe."*

Do we not have here the true cause of the pruritus and the real cause of its cure, the very appropriate applications of carbolic acid and glycerine to the cervical canal?

The relics of an old cervical leucorrhoea remaining so long after the menopause, although very slight, might produce, by its irritating character, this pruritus; but what is very likely a more rational explanation, the reflex irritability of the sensitive nerve filaments might have produced it, as we well know that pruritus is oftentimes a pure neurosis. Bearing upon this reflex irritability, caused by a morbid condition of the cervical canal, lingering sometimes long after the menopause, I will give a single case:

Mrs. R—, aged fifty-two years; menses ceased some four years previous, and whose general health was excellent, except somewhat frequent attacks of severe strangury, for which her husband, a retired physician, had cauterized the urethra locally with appropriate internal medication; but all to no avail. At his request, I called upon her, and a vaginal examination found the uterus very much atrophied and the external os almost entirely closed; but after close examination a minute orifice was found at the bottom of the vaginal cul-de-sac, and upon passing a very fine probe, I found the original cervical canal so sensitive that great pain was caused by its passage, which reminded me of the sensitive crown of a tooth.

Dilating the external os and making a few applications of tr. iodine, she was completely relieved of her long-standing and painful malady.

With one or two inquiries, I will close. "Are there not many times conditions of nervous system that linger years after the 'change of life' which ought

* Italian mine.

not to be referred to some lingering old uterine trouble, and which is too often overlooked? And is it not our duty to keep constantly before us this fact in many maladies after this change has occurred?

A DOCTOR NOT IN CONSULTATION.—It has never been thought necessary to teach the differential diagnosis between typhoid fever and strangulated hernia; nevertheless, a melancholy instance of where such instruction was needed occurred at Pennsylvania last month. A young man, aged 23, was taken with chills, and continued to grow more and more ill. Two physicians, Drs. A. and B., were called in to see him, and pronounced the case one of typhoid fever. They treated him for this disease for some days, but the patient grew steadily worse, and at last the family, unknown to either of the first two physicians, called in Dr. C. He stated that the treatment which they had been following was entirely wrong, and that the patient was suffering from strangulated hernia. He gave a hypodermic injection of morphine. After this the patient grew drowsy, fell into a heavy sleep, and, in a few hours, died.

The coroner made a post-mortem examination, and found that the disease was typhoid fever, as had been first diagnosed. We do not know whether or not Dr. C. has heretofore been considered an ornament to the medical profession. In his connection with the above case, there was a positiveness of statement and a decision of action which, on previous occasions, may have won him much favor. His last performance, however, makes it clear that his proper sphere of usefulness is outside of the professional line. Violations of the code of medical ethics are known to have been overlooked; insinuations against the character of a professional brother have been condoned; and even extremely stupid mistakes are known to have been committed by very respectable practitioners. When, however, all these three derelictions occur on one occasion, and to one man, he should be requested, for the sake of humanity and our common reputation, to step out from the ranks of medical men.

It is instances of this kind which show that our code of ethics has a practical value, as well as an æsthetic and moral one. A proper consultation in accordance with rule would have saved much distress, and, perhaps, a fatal issue.

POP-CORN IN THE NAUSEA OF PREGNANCY.—Dr. F. A. Barrall, of this city, writes: "One of the best remedies for the nausea which attends the parturient state is the quickly roasted grain of the *Zea mays* or Indian corn. It is too familiarly known as 'pop-corn' to require any description. Many physicians are not aware of the beneficial results which may often be derived from the use of this simple agent. It should be white and light, and may be eaten freely, sprinkled with salt. I think it is no exaggeration to say that it will be found of the greatest service in many cases where the products of the chemist's art have proved unavailing."

A ROYAL SANITARY COMMISSION has been appointed to go to Dublin and investigate the condition of matters there. For a long time that city has had the reputation of being wretchedly drained and cleansed, its tenement-houses being particularly bad.

PHARMACEUTICAL USE OF GELATINE.—According to the *Pharmaceutical Journal*, gelatine is not suitable as a vehicle for tannin in pessaries or suppositories. A decomposition occurs with the formation of tannate of gelatine, and the otherwise gelatinous vehicle breaks down in the preparation. As it is becoming

fashionable to use gelatine as the vehicle for various drugs, and especially to prescribe pessaries of this material, the fact thus noted should be borne in mind.

THE MEDICAL LAW OF CALIFORNIA.—Several of our Western States have taken the lead as regards legislative restrictions upon quackery. Of these States, California, according to the *Western Lancet*, heads the list. The editor of this journal, in commenting upon the workings of the law, states that, although not rigidly enforced, it has already done a great deal toward driving away notorious quacks and impostors. The law has been pronounced constitutional by the highest tribunals, and, as a rule, convictions follow the cases of arrest. In that State, to be an unlicensed doctor is to be a law-breaker.

IRREGULAR PRACTITIONERS ON HEALTH BOARDS.—Encouraged by their success in getting on the National and other boards of health, a petition has been signed and sent to Governor Blackburn, of Kentucky, asking that a homeopathic doctor be made member of the State Board of Health. It is thought that this effort will surely fail with the doctor-governor.

SANITARY INSTITUTE OF GREAT BRITAIN.—This organization held a meeting at Croydon under the Presidency of Dr. Richardson, on Oct. 21st, 22d, 23d, and 24th. There was a sanitary exhibition in connection with the meeting, which was the largest and most influential ever given in connection with the institution. Papers were read by a number of prominent sanitarians.

THE MASSACHUSETTS MEDICAL SOCIETY has voted to admit women to membership. As Boston female doctors largely run to homeopathy, it is not expected that the society's action will greatly change the character or sex of its members.

TO REMOVE PLASTER-OF-PARIS FROM THE HANDS.—A very effectual way of removing plaster-of-Paris from the hands, is mentioned by a correspondent of the *Boston Medical and Surgical Journal* as being employed in St. Thomas's Hospital. It consists merely in the use of white of egg, instead of soap, in washing the hands. The fact will interest those who have much to do with plaster dressings.

NATIONAL ACADEMY OF SCIENCES.—At the recent meeting of this Society in New York City, Dr. J. J. Woodward presented the results of some of his work in connection with the production of the "Medical and Surgical History of the Rebellion." This work referred especially to dysenteric and diarrheal diseases.

Dr. J. C. Dalton presented some generalizations upon the structure of the human brain. He showed, in particular, that the gray matter of the cerebro-spinal system is in three deposits: viz., in the centre of the cord, in the ganglia at the base of the brain, and in the cortical substance. These three deposits are all intimately connected. The true shape of the corpus striatum and the relations of the hemisphere to the crura cerebri were also described.

SURGEON-GENERAL P. S. WALES, U. S. NAVY.—Surgeon-General William A. Hammond, U. S. Army (retired), of this city, on the evening of November 20th, gave a brilliant reception in honor of P. S. Wales, of the U. S. N., lately appointed Surgeon-General. A large number of members of the clerical, legal, and medical professions, and also several eminent representatives of the U. S. A. and the U. S. N., were present.

Original Lectures.

CLINICAL LECTURE ON DISEASES OF WOMEN.

DELIVERED AT THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

By T. GAILLARD THOMAS, M.D.,

NEW YORK.

[Reported by P. BAYNEBERG PORTER, M.D.]

CASE I.—*Pelvic Neuralgia due to Laceration of the Cervix.*

GENTLEMEN:—Our first patient to-day is Bridget R—, a native of Ireland, and thirty-one years of age. She has been married twelve years, and has had six children and one miscarriage. The last child was born three months ago, and (as we so often find the disorders peculiar to women dating from parturition) she informs me that her trouble has lasted just three months. What she complains of, and has come here to seek relief for, is a fixed, constant, and severe pain in the lower part of the abdomen, which has continued ever since her child was born. She suffers from absolutely nothing else whatever, and is, as you perceive, a perfectly healthy-looking Irishwoman.

The pain is certainly a very definite reality to her, and yet, when I came to make external palpation over its seat, as indicated by her, I found nothing at all abnormal about the locality, and no tenderness was excited even when very firm pressure was made upon it. In order to find out, if possible, what it was due to, I made a vaginal examination, the patient in the meantime informing me that she had been previously examined by a physician, who told her that she had "ulcers on the womb." As soon as my finger reached the os, I found that there was a very bad laceration of the cervix, extending fully up to its junction with the vagina; and this was no doubt the explanation of the ulceration which was supposed to exist in the case. Besides this, there was nothing abnormal about the pelvic organs, as far as I was able to ascertain, except that the uterus was tilted slightly forward.

Now, have we arrived at the diagnosis in this case? I think we have; for I am fully convinced that the constant pain complained of here is really a reflex neuralgia, which is due to nothing else but the pathological condition found about the cervix. But you say: Have you not told us that the uterus is anteverted to some extent? Yes; but that condition, too, I believe to be due to the laceration of the cervix also. The laceration has been the means of keeping the uterus constantly engorged with blood, and consequently, being heavier than it ought to be, it has fallen forward somewhat, and remained in this position.

This completes the case, with the exception of a brief allusion to the treatment. Since this reflex neuralgia depends, as we believe, upon the laceration, the only way to cure it is to perform an operation and close the latter. If our diagnosis is right, it is just as sure to do away with the pain complained of as the removal of a tooth is to cure a supra-orbital neuralgia which depends upon its presence in the mouth. In either case the suffering may not cease at once, but, the cause having been really removed, it will, at all events, gradually disappear. If the operation for the closure of the laceration is performed here, I am

confident that the patient will be entirely relieved of all her pain. The focus of irritation will then have been removed, and the uterus will also return to its normal position, because the cause of its congestion will have disappeared.

This is not an isolated case. If it were, I should not be so willing to attribute the whole trouble to a laceration of the cervix (although here very extensive); but I have seen such a large number of similar instances in which complete relief was afforded by the operation, that I can speak with a considerable degree of confidence.

CASE II.—*Chronic Ovaritis.*

The next patient, like the last one, I want to use for the purpose of impressing a fact upon you. The advantage of a clinic like this I conceive to be that you here see cases which will be of advantage all through your practice when you meet with similar ones. Thus, for instance, when in three, five, or ten years from now, you see a patient whose only symptom is such a reflex neuralgia as is present in the case that has just been dismissed, the memory of this laceration of the cervix, long forgotten it may be, will instantly flash across your mind.

The patient's name is Margaret B—. She is a native of the United States, twenty-five years old, and single. "How long have you been sick?"

"About two years."

"Were you quite healthy up to that time?"

"Yes."

"In what way have you suffered?"

"From severe headache and pain in the back and side."

"In any other way?"

"No."

(These are, of course, obscure symptoms; but still they point towards the generative organs, and are sufficient to induce us to ask direct questions concerning them.) "How about your monthly periods?"

"I have great pain then."

"At what time does the pain come on?"

"A week before the blood comes."

"Do you suffer much at this time?"

"Yes, very much indeed."

"Where do you feel this pain, of which you speak?"

"All around the waist."

"Is there any particular point where it is especially severe?"

"Just here" (placing her hand over the left iliac fossa).

"And does this keep you very uncomfortable?"

"I can get no rest at all."

(I assure you, gentlemen, that this patient is not exaggerating in the least; for, as she described them to me in private, her sufferings are undoubtedly much more acute than she gives you any idea of here.) "Is it a full week before the flow that the pain commences?"

"More often about five days."

"When the flow comes on, does the pain cease?"

"Yes."

(Yet this is called dysmenorrhœa. You see, however, how utterly inapplicable the term is in such a case as this. Dysmenorrhœa, of course, means difficult menstruation; and yet here the patient only gets relief when the menstrual blood begins to flow. This is the peculiarity about these cases, although the relief when the flow comes is not always complete. Let us inquire about this point here.)

"When the flow appears, does the pain stop altogether."

"Usually it does, but sometimes I have pain for about three days longer."

"Then how is it with the last two or three days of your period?"

"I am entirely free from pain then."

"Do you have the whites at all?"

"A little."

This is a typical case of its class. Here is a woman who evidently has something wrong about one of the processes, either of ovulation or menstruation. You know that in the last few years many authorities have begun to doubt that ovulation is really the cause of menstruation. In support of the view that they are independent processes, it has been claimed that a number of instances have occurred in which both ovaries have been removed, and yet menstruation has gone on just the same as before. In matters of this kind, however, one cannot help being guided to a certain extent by his own experience. I have taken out both ovaries in no less than fifteen cases, and yet in not a single one of them has the patient continued to menstruate. In two or three, it is true, there was a tendency to metrostaxis, as it is called, which is analogous to epistaxis. But this was due, undoubtedly, to the habit of menstruation which the uterus had acquired during a long series of years, and could not give up all at once. In every instance, however, the menses disappear altogether in the course of a few months. In one instance that I know of (not in the human subject, however), I must confess that I was not a little puzzled for a time, as it was so contrary to my experience. A bitch which had been spayed continued to estruate just the same as before. But when after a time she became pregnant and gave birth to pups, the whole matter became clear. Although both ovaries had been completely removed, there was undoubtedly present in this instance a supernumerary ovary (the *ovarium succedaneum*, as it is called), which is occasionally met with in the lower animals. If the animal had not happened to become pregnant, the case would certainly have been quoted as one of those supporting the idea that menstruation is independent of ovulation; but as ovulation took place, it was evident that there was still an ovary left, which, of course, would account for the menstruation as well as the ovulation. The arguments of those maintaining the independence of the two processes, are, in my opinion, weak and inconclusive. My impression is that menstruation is dependent on ovulation; and I am convinced that in time we will all go back to the unchallenged faith of our fathers.

In the case now before us, the derivative action of the menstrual flow always relieves the pain that precedes it, and, as a general rule, dissipates it entirely. What, then, would seem to be the trouble here? Something must be wrong about the ovaries, and in all probability the left one particularly. At all events, this would satisfactorily account for all the symptoms which have been noted, as well as one additional one to which the patient has just called my attention, and which has not as yet been mentioned to you. This is a peculiar dusky discoloration of the skin upon the forehead, similar to that seen in Addison's disease, and giving a sunburst hue to the part. Such a pigmentation is generally of long standing, and sometimes becomes permanent.

On resorting to a physical exploration here, the first thing that I noticed was that the uterus was decidedly anteverted. Now, if any one had made the

vaginal examination without first inquiring particularly into the history and rational signs, as we have done, he would undoubtedly have pronounced this a case of obstructive dysmenorrhoea, due to anteversion of the uterus; and I cannot tell you how often I have known even eminent surgeons cut deeply into the cervix, for the purpose of relieving stricture at the *os internum* in just such cases as this. Yet, what could possibly be more illogical? In the first place, the pain occurs long before there is any blood in the cavity of the uterus to be dammed up by the obstruction at the *os internum*; and, in the second place, as soon as the blood makes its appearance, the pain is at once relieved, or even done away with altogether.

I was therefore satisfied that this was by no means the true diagnosis of the case; and, proceeding with the examination, I succeeded in finding just what I expected to find from the symptoms which the patient had so feelingly described. On making conjoined manipulation, I ascertained that there was nothing abnormal in the region of the right ovary; but in the left broad ligament I discovered a body about the size of a hen's egg, and so exquisitely sensitive that the slightest pressure upon it caused the patient a great deal of suffering. Indeed, as soon as I began to palpate it, she exclaimed, "That is what gives me my headache and all my trouble." Now, I felt that I had arrived at the correct diagnosis, and this was *chronic oöaritis*.

This condition is vaguely so called, for we know almost nothing of ovarian pathology, except so far as cysts and other large tumors of the ovary are concerned. The only way to find out the exact state of affairs would be by a section of the organ; but, as this affection never proves fatal, there has been very little opportunity for studying its real pathology. The most that we can say concerning it is that there is probably a certain amount of hyperplasia present, and certainly congestion and nervous derangement. But how about the displacement that we find in addition to the chronic oöaritis? This is a coincidence that you must always be prepared to expect; and Barnes, in his work on diseases of women, makes the unqualified statement that there is more or less displacement of the uterus in every case of chronic oöaritis. The explanation is that the uterus is kept constantly engorged with blood, in consequence of the condition of the ovary, and hence, being much heavier than normal, it bends over in one direction or another, and then remains permanently in a malposition. It is possible that in the healthy female the uterus not infrequently falls backward or forward at the time of the menstrual epoch, in consequence of its increased weight at this period; but, the congestion being only temporary, the organ returns to its normal position as soon as that passes off. The leucorrhoea that has been noted in this case is also probably due to the same cause, the long-continued congestion of the uterus having given rise to endometritis, or chronic uterine catarrh.

The prognosis in such a case as this will depend somewhat on whether the medical attendant directs his treatment to the uterus alone. If you should pursue this course, at the end of a year or two, perhaps, the patient will complain that she suffers exactly the same, not having experienced the slightest relief, even though her uterus may have been restored perfectly to position and constantly maintained there. Why so? Because you will have been treating merely an effect, and not the cause of the trouble. What should be treated is that left

ovary; but, alas! our means for doing this are extremely limited, and far from satisfactory. Such a condition as is here present will yield only to a prolonged course of treatment, and in some instances will not yield at all. Many of the cases are so incurable that the only chance of relieving the patient is to resort to the operation which Dr. Batty has devised, and termed "normal ovariectomy." It is, however, such a dangerous procedure that it should never be undertaken unless the case is really a desperate one.

Notwithstanding that these cases are so discouraging, however, I should certainly advise you never to begin with one of them by telling the patient that you can do nothing for her. Such an announcement would only utterly dishearten her, and if it did not plunge her into a permanent state of melancholy, would, at all events, tend to make her feel worse than ever. One thing that you always find about them is that the general condition is considerably impaired; so that, in the first place, the patient needs feeding up to the greatest possible extent, in addition to a course of appropriate tonics. One of the best that I have found in this condition is the syrup of the hypophosphites, which is now so frequently employed in the incipient stages of phthisis; and iron, quinine, and other agents, will all prove of some service. The remedies employed should always be changed from time to time. But in order to produce a beneficial effect upon the nervous system, I know of nothing whatever so useful as what is called "travelling for pleasure;" and, if this patient could spend a year in Europe, under agreeable circumstances, I have not the slightest doubt that she would be immensely benefited. I have found no other treatment for chronic ovaritis nearly so good as this change of air and scene, and the pleasurable excitement of sight-seeing and travel in cheerful company, although I do not pretend to explain exactly in what manner the good result is brought about.

But, supposing that the patient is not able to travel in Europe, what can we do for her in addition to giving her the tonics spoken of? In the first place, she should be directed to make use of very copious hot-water vaginal injections at least twice a day, and three times, if possible. Then I should paint the roof of the pelvis once a week with compound tincture of iodine; but if after a time it was found that this was not doing her any good, it ought to be discontinued; after which it would probably not be necessary to make another vaginal examination for several months to come. Iodine might also be applied externally, and as often as two or three times a week. At the same time electricity should be faithfully employed, and for this purpose I have found the constant current the only one that is of service, the faradic current being rather injurious than beneficial. The best way to apply it is for the patient to lie upon one electrode while the other is carried to the region of the affected ovary, and the application may be made once or twice a week. For at least a week preceding menstruation the patient should have absolute rest in bed (rest being as important to an inflamed ovary as to an inflamed eye); but she may be permitted to get up as soon as the flow makes its appearance.

Under such a plan of treatment I should expect the patient to be materially benefited in the course of a year, and it is possible that she might be very greatly improved even in a few months. Under ordinary circumstances, of course, it is impossible for a girl like this to have such measures as these carried out; but if she can be persuaded to enter such an institution

as the Woman's Hospital in this city, I can assure her that everything will be done for her that science can suggest for the relief of such unfortunate cases.

CASE III.—Menopause unusually delayed.

Our next patient, Elizabeth C—, was born in England, and is fifty-one years old. She has been married thirty years, and has had thirteen children and two miscarriages.

"How long have you been sick?"

"Ten months."

"Not longer than that?"

"Yes, somewhat; but I commenced doctoring about ten months ago."

"What was it for which you consulted the doctor?"

"Bloating of my stomach."

"Anything else?"

"Pain in the back."

"If the bloating of your stomach were gotten rid of, you would feel quite well, would you not?"

"Yes."

"When did you have your monthly sickness last?"

"Seven weeks ago."

"How many times have you had your sickness during the last twelve months?"

"Four times."

"Do you have any discharge?"

"Sometimes a little whites."

In glancing back on this history, we find the symptoms quite obscure; but, at all events, we have the interesting fact that this woman of fifty-one has not altogether ceased menstruating. During her fifty-second year, as we have seen, she has menstruated four times; and on inquiry I find that during the year preceding she menstruated more frequently than she should have done, the flow occurring regularly every three weeks. For a year past she has noticed a considerable enlargement of the abdomen, which she calls "bloating;" and she now informs me that this causes her a great deal of difficulty in breathing when she takes exercise. As she expresses it, it "all smothers her up." She appears to have no other trouble.

On making an examination *per vaginam*, I found that the uterus measured three inches in depth, and although this was by no means a long measurement for the uterus of a woman who has borne thirteen children, I ascertained, on making conjoined manipulation, that the uterus was larger than normal in other respects. I also discovered a very extensive laceration of the cervix, which must have been made during one of her labors (perhaps the first), and was, no doubt, the cause of the sub-involution of the uterus here noticed. This state of affairs would, it seems to me, account for the patient's still menstruating at the age of fifty-one, the physiological atrophy at the ordinary age of forty-five having thus been prevented. There is, however, no disease about the structure of the organ; and it is probably smaller than it was a year ago. The near approach of the menopause is also indicated by the marked diminution in the frequency of menstruation.

One characteristic of the change of life, as it is popularly called (especially when this comes on at a later period than usual), is senile hysteria; and accompanying this is a very marked tendency to tympanites. This tympanites is exceedingly apt to come on at the time of the menopause, and is, indeed, often seen in cases where there is none of the hysterical element in connection with it. In the present instance you notice how very resonant and drum-like the sound is when I make percussion over the dis-

tended abdomen. This accumulation of gas no doubt presses upon the diaphragm to some extent and causes the patient a certain amount of discomfort. So much, then, for the diagnosis.

As to the prognosis here, I may remark that no remedy at present known to medical science will cure the tympanites. A frank and kindly talk on the part of the medical attendant will do more for the patient in such a case as this than all the medicine in the world. Such women are apt to imagine that they are the subjects of tumors and all sorts of terrible affections, and it will do them a great deal of good if they can be made to understand that the whole trouble is due merely to wind in the intestinal tract, and that the utmost injury that it can cause them is simply a little inconvenience. The tympanitic condition is due entirely to the state of the nervous system peculiar to this period of life, and nothing need be done for it except to keep the bowels regular. In the present case, there is no constipation, and the patient, therefore, requires no medicine. In some instances systematic kneading of the abdomen is of service, and the knee-chest position will often enable the patient to get rid of a considerable quantity of the gas. Dr. Jenks, of Detroit, has recently written a very interesting paper on the treatment of tympanites by this postural method, and although it is a plan of treatment that has long been recognized to some extent, he deserves great credit for calling the attention of the profession to it in so able and forcible a manner. There is one case which he mentions particularly, in which such marked tympanites came on after ovariectomy that the patient nearly died in consequence of it. When this method was resorted to there was an escape of an unlimited amount of flatus by the anus, and the patient afterwards made a good recovery from the operation. Personally I have been in the habit of employing it in certain instances for the past fifteen or twenty years, and can, therefore, confidently recommend it to you.

CASE IV.—*Pregnancy, with Antelexion of the Uterus.*

Our last patient to-day is Mary C—, a native of the United States, and twenty-two years of age. She has been married five years, and has had three children and one miscarriage. Her last child was born one year ago, and the miscarriage occurred before that.

"How long have you been sick?"

"One year." (The patient has been sick just a year, and, as you have heard, it is just a year since her child was born. Here, no doubt, is another of these very frequent instances that we meet with, in which injuries received by the uterus in parturition give rise to long-continued trouble afterwards. In the case of the woman who was just before us, for instance, I am confident that the unusual delay which we found in the menopause was due to the subinvolution of the uterus that remained after one of her labors.)

"In what way do you suffer?"

"I have the back-ache."

"Do you have pain anywhere else?"

"No."

"Do you suffer from the whites?"

"Yes."

"Very much?"

"Yes."

"Do you have any trouble with the bladder?"

"I have to pass my water very often."

"Are you regular in regard to your monthly sickness?"

"I have not seen it for two months."

"You do not think you are in the family way?"

"No."

When I made an examination here, I at once discovered that the uterus was bent over, and directly pressing upon the bladder. Here, then, already was a sufficient cause for most of the symptoms; the frequent urination, the back-ache, and the uterine catarrh giving rise to leucorrhoea. But, on touching the cervix with my finger, I found that it was quite soft and covered with a tenacious fluid; and when I employed conjoined manipulation, ascertained that the uterus was more than twice as large as it ought to be.

Why was the cervix so soft and the uterus so large, and why had the menses stopped for two months? I could come to but one conclusion, and that was that the patient was pregnant. In all her previous pregnancies she has suffered markedly from nausea and vomiting, and the absence of this sign made her think that she could not be in this condition. This symptom, however, is by no means a constant one, even in women who are ordinarily subject to it; although just why it should sometimes be present and sometimes not, it would be difficult to explain.

But now, if we find, as I should be almost willing to assert from the absolutely healthy appearance of our patient, that this young woman has never in her life skipped a monthly period unless she was either pregnant or nursing, it would be strong additional evidence that she is now again pregnant. On questioning her, I learn that this is actually the fact, and therefore I do not hesitate to make the diagnosis of pregnancy here. You remember (as I have before endeavored to impress upon you) that a diagnosis is the most logical deduction that we are able to draw from the premises in any given case. Let me advise you in this connection never to be afraid of making a mistake. Always do the best you can under the circumstances, and no one can reasonably find fault with you. There are some men so timid that they are never willing to risk an opinion; but such individuals are invariably weak men, who will never make any success in life. It is possible that in a month from now this patient will come back, and I will find that she has not been pregnant at all; but if this is the case, it will not be the first mistake of the kind that I have made. Like every other medical man of any experience, I have made a large number of mistakes in diagnosis; but, as in every instance I have endeavored to draw the most logical conclusion that I could from the premises offered, I do not think that I have any reason to reproach myself on this account.

Let us glance again at the premises in this case. Given a perfectly healthy woman, who, in the first place, has never skipped a period except during pregnancy or lactation, and who has now seen no menstrual flow for two months; who, secondly, has a softened cervix uteri (which, by the way, admits the finger; while in the normal cervix the *os edentatum* will only permit the passage of the uterine probe); and who, finally, has a uterus which is more than twice the natural size of this organ, and has lost the natural distinctness of outline characterizing it. What is the deduction? Plainly, that the woman is pregnant; and this is the only common-sense conclusion that can be arrived at under the circumstances.

As to the antelexion (which, of course, accounts for the marked irritability of the bladder), that, no doubt, originated at the time of her last delivery, a year ago. Either she got up too soon after the labor (which is very probable), or something else occurred

then which resulted in this displacement. Notwithstanding the latter, however, and the consequent bent condition of the uterine canal, seminal fluid seems to have made its way into the cavity of the organ, and the woman is again pregnant. The only thing which I would suggest for the relief of the displacement here would be a cork pad (which I am in the habit of advising, on account of its cleanliness), which should be worn upon the lower part of the abdominal walls, in order to lift up the fundus of the uterus. This, I think, will be a great comfort to our patient, and I will only ask, in conclusion, that she will do us the favor of coming back here in a month from now, so that we can have the opportunity of verifying or disproving the diagnosis which has been made.

Original Communications.

NERVOUS DISEASES CONNECTED WITH THE MALE GENITAL FUNCTION.

By GEO. M. BEARD, A.M., M.D.

(Continued from p. 285, Sept. 27, 1879.)

NERVOUS SYMPTOMS CONNECTED WITH TRUE SPERMATORRHOEA—TRUE AND FALSE HYPOCHONDRIA.

IV.

HALF a century ago, when women consulted their physicians for symptoms of pain in the back, difficulty of micturition, bearing-down sensations, pain in the vertex and other forms of head pain, insomnia and malaise, with mental depression, incapacity and indisposition for labor, the diagnosis for hysteria was almost always made. At the present time, a female with these symptoms, and other symptoms often associated with them, is submitted to examination by the gynecologist, and, in very many cases, there is found a diseased condition of the reproductive apparatus—congestions, displacements, and the like; and no treatment of these cases is regarded in any sense as scientific where such examination is not made, and where the proper local treatment is not employed. Whatever constitutional treatment is used, local treatment is considered indispensable—and, on the part of some, has been carried to an extreme, to the rejection or neglect of constitutional treatment. In this respect there is now a reaction; by truly scientific physicians, both constitutional and local treatment are used in alternation or succession.

The functional nervous diseases of men are now in the same condition as the diseases of women half a century ago. Symptoms of mental depression, morbid fear in all its types and phases, hyperidrosis, nervous dyspepsia, palpitation, deficient mental control, together with various forms of head, back, and body pain, are all referred to hypochondria; and there is usually no thought of referring any of these symptoms to the reproductive system, on which they often depend. In the future it will be understood—indeed, it is beginning to be understood now—that the diagnosis of hypochondria in these cases is oftentimes as unscientific as the diagnosis of hysteria with analogous symptoms in women; that whatever constitutional treatment be employed, there should go with it simultaneously, alternately, or successively, local treatment, especially to the prostatic urethra,

which is so often the source whence all these difficulties originate, and by which they are maintained.

This view of the relation of the reproductive system to nervous disease is not narrow or one-sided, nor does it partake of the character of a hobby; neither is it here pushed in any way to an extreme. It is in accordance with facts that are verifiable and abundant, that in men as in women, a large group of nervous symptoms which are very common indeed, would not exist but for morbid states of the reproductive system.

I knew of a case of prolapsus uteri where the patient was kept in bed for two years, and treated constitutionally for various symptoms, without any examination ever having been made or suggested; as soon as she fell into proper hands, she was treated by mechanical means, and at once relieved.

We censure, in the strongest words we can command, a physician who manages a case of female disease in this way, at the present time, because the teaching of the schools is clear and abundant, and general practitioners, as well as special practitioners, are expected to recognize, and do recognize, the nervous symptoms of women that suggest disorder of the reproductive system.

When the relation of nervous diseases to the male genital apparatus is as well understood as their relation to the female genital apparatus, it will be regarded as an oversight of a serious character not to inquire and examine, as far as possible, into this local condition, when certain nervous symptoms appear.

What lacerations of the cervix and perineum, irritations, congestions, and displacements of the uterus and ovaries, are to many female nervous symptoms, such are phimosis, redundant prepuce, varicocele, irritable testes, urethral contractions, and, above all and pre-eminently, irritations and congestions of the prostate and *prostatic urethra*, with spermatorrhoea, to many male nervous symptoms.

Interesting and important as have been the advances by surgeons in the surgery of the male genitourinary organs, the nerve-relations of these parts and functions now remain in much the same state that they were in the days of Lallemand.

The following cases illustrate both the importance of making examination of the reproductive apparatus when certain nervous symptoms exist, and the results which follow neglect of such examination, and consequent want of knowledge of the real source of the difficulty. The cases are the more interesting from the fact that both of them were scientific men, experts in the strict sense of the word, and well qualified to observe and report upon the symptoms. Both of them, I may say, co-operated with me in the study of the cases, and with scientific interest—through the intellect more than through the emotions.

CASE XVII.—A young man, not quite thirty years of age, gave me this history: He had formerly been troubled with great pain in the lumbar spine, which had persisted for some time, but which had been relieved some years before by stretching of the prepuce, for a degree of phimosis that existed. The relief which followed this operation for this special symptom of lumbar pain was interesting, and, in his case, I think was not due in any way to mental influence.

When he consulted me he was troubled at times with inequality of the pupils; but this symptom was not constant as in organic disease of the spine, but came and went, like other symptoms of sexual neuroasthenia.

He suffered at times from attacks of nervous chills,

with depression. He likewise suffered from fear of society, so common in these cases.

With all this there was an incapacity and incompetency, at times, for his work, which was confining and exacting, and the query arose whether he ought to continue in his profession. Being a thorough expert with the microscope, he had made very many examinations of urine; and, but a short time before seeing me, he had examined his own and found that it contained spermatozoa. This was a surprise to him; but subsequent examinations confirmed this analysis.

For years this individual had been in a state of chronic exhaustion without suspecting that spermatorrhœa might be an accompanying, if not a causative factor. Even allowing that this unnatural flow of semen in the urine or at stool is, in some instances, an effect of the general neurasthenia, it is surely important to know of its existence. Regarding it as a symptom only, it is a symptom to be noted and treated.

This case was put under both local and general treatment, and is improving.

CASE XVIII.—A physician in middle life, of very fine organization, of marked nervous diathesis, consulted me for a group of nervous symptoms from which he had suffered seven or eight years. The symptoms were pain in the upper part of the back and shoulders, mental depression, insomnia, and shooting pains resembling ataxia. The bladder was exceedingly irritable; putting the hands in cold water caused the urine to flow; on any excitement also there would be discharge—the weeping penis.

He was troubled also with a great dread of company, especially that of strangers; but, by taking great care of himself, was able to attend to a very large practice; though he was easily prostrated by over-exertion or by mental disturbance. Seven years before he had lost his wife, and had not married again. The urine was examined by Dr. Mittendorf, and found to contain a quantity of spermatozoa. This was somewhat of a surprise to the patient, who is himself an accomplished diagnostician; though at the same time it confirmed his suspicions.

Involuntary emissions had annoyed him before marriage, and had recurred after the loss of his wife seven years before. At times, as is quite frequently noticed in these cases, the penis and scrotum were cold to the touch.

How long the spermatorrhœa had existed in this case can never be known; but as the nervous symptoms had been troubling him for years, it is not probable that the spermatorrhœa was a new complication.

On using the different kinds of local measures that have been referred to in other papers of this series, it was found that the urethra was very irritable indeed, and that unusual caution was needed in the introduction of instruments and application of remedies. Mild electrolysis of the prostatic urethra, and faradization with sounds, being almost the only forms of direct local treatment that were well borne. An urethra in this irritable state is a perpetual source of reflex irritation, for the body: it sets the whole system on fire like an irritable uterus or ovary in woman, and produces very many of the same symptoms.

It seems almost impossible to tell, from the nervous symptoms alone, whether spermatozoa will or will not be found in the urine on examination.

In the following case there were even more symptoms which suggest trouble with the prostatic urethra than in the two preceding cases; and yet, on an examination of the urine, there was found only an ex-

cess of phosphate of lime—there was not even excess of oxalates and urates.

CASE XIX.—The patient, a young man thirty years of age, had the following symptoms: stiffness of the lower limbs; very much pain in the lumbar spine, in the back of the head and neck, feeling of pressure at the vertex; heat in the spine; soreness of the bottom of the feet—sometimes the heel would feel as though it were a bare nerve; the gums were tender and white; the pupils were dilated; he had nervous dyspepsia; the feet and hands at times were very cold, especially while thinking; the power of mental application was impaired; he was annoyed with ringing in his ears and insomnia, stomachic vertigo, and vomiting; and he had anthropophobia, or aversion to society. A trip to Europe did no good, and while at sea his hands and face would swell and puff up.

I may say also that he was of English birth, and these symptoms came on soon after coming to this country. At one time he had married, and had lost his wife. He formed the habit of masturbating at the age of fifteen, and maintained it regularly for three years to very unusual excess, sometimes committing the act two or three times in quick succession within the space of an hour. At one period, also, he had been excessive with women. For two years had observed a decline in his powers; in dalliance there was prostatic discharge. He was unable to urinate when any one was looking on or waiting for his turn. This last summer the patient had for the first time a full and protracted attack of hay fever in the later or autumnal form.

With all this collection of nervous symptoms there was no evidence, on a single examination, of the existence of spermatorrhœa.

CASE XX.—A gentleman, thirty years of age, anæmic as well as neurasthenic, reported that he had suffered for some years from fear of drunken men.* On the horse-cars and in the streets he was in fear of meeting intoxicated persons. The basis of this fear appeared to be the possibility of a row caused by a drunken man. On seeing a person drunk on the ferry-boat, he would go to the extreme end of the boat to avoid him. When a drunken man got on the horse-car where he was, he would at once step off. He dreaded, at certain times of the day, especially when he was exhausted, to go through certain streets, where he was especially liable to meet intoxicated persons. As I have elsewhere stated, these morbid fears are always associated with other symptoms. In this case there were symptoms of excessive itching in the axillæ and on the scrotum; fibrillary contractions; great coldness of the hands and feet; mental depression was also a prominent symptom. He had much muscular vigor, and could walk far miles.

The patient was quite anæmic. As happens with many of these cases, the nerves concerned in the process of erection are abnormally sensitive; crossing the legs and swinging them, or simply riding on the cars, quickly bringing on erections.

Once a month or so, in passing water, he experiences pleasure, as in the emission of semen. There was frequent aching of the limbs, of which such pa-

* These morbid fears seem to be capable of an infinite variety of phases. In addition to the cases that I have already reported in the paper "Morbid Fear as a Symptom of Nervous Disease" (*Hospital Gazette*, July 19, 1879), and to which I may be allowed to refer, I have seen lately a phase of this symptom, the chief peculiarity of which was *inability to go out in the day-time*. He could go anywhere after dark, but was afraid of the light; and all the day was shut up in his house. He first came to see me in the evening.

In this case, as in similar cases, there were no delusions or hallucinations. He soon recovered of this symptom.

tients so often complain, and to which Erb refers in his essay on Neurasthenia.

Urinary analysis in this case found no spermatozoa, very little oxalate of lime or urates, but considerable mucus with pus-cells from the upper portion of the urethra.

Such cases show that there is no constant relation between the nervous symptoms and the ingredients of the urine, at least so far as can be determined by a single examination. The above case advertised his anæmia and neurasthenia in his countenance and bearing, and was in reality a severe sufferer, being, indeed, worse than some cases that bore demonstrable evidence of the existence of spermatozoa in the urine.

True and False Hypochondria.—Few terms are so often misused in medicine as hypochondria. It is applied to almost any symptom complained of by a patient, and doubted or misunderstood by the physician. It certainly would not be improper to call for a definition of this over-used term.

Hypochondria, strictly analyzed, is *groundless fear of disease*; and when the word is used by physicians it is to convey that idea that the disease of which the patient complains does not exist in his case, and that his fear that it does exist, or that it may exist, has no foundation outside of his own fancy.

Thus analyzed, hypochondria is really one of the many phases of morbid fear, and, like other morbid fears, is a symptom of nervous disease, but not a disease itself, although for convenience' sake we call it such. This is true hypochondria or pathophobia, a term justifiable and necessary, and well applicable to many cases; but it is a *malady far less frequent than is supposed*.

The term is constantly and roughly applied to cases of real, positive, and demonstrable disease, especially functional nervous disease—a sort of wastebasket into which we throw every case that is not described in the books. Symptoms that our senses cannot appreciate, that cannot be seen or heard or touched, and for the existence of which we depend either on the patient's statements or on examinations of the urethra or of the urine, that are not usually made, are referred to hypochondria.

CASE XXI.—A young man, twenty-three years of age, began the habit at the age of seventeen, but had never been remarkably excessive. The chief symptoms at the time when he first consulted me were palpitation and morbid fear, aversion to society. On examination the prepuce was found to be elongated, and the lips of the meatus were red and swollen, as is so often observed in disorders of the prostatic urethra. The patient was in other respects well, very strong and muscular, capable of hard and long work at his trade, which was that of an engraver. The functions of sleep and digestion also were normal.

In this case two facts were clear and demonstrable: I.—That he feared disease more than he experienced it. He stated to me in deep earnestness that until he saw me he had supposed that he was the worst case in the world, and it was hard for him to believe me when I assured him that his was really one of the mildest cases that I had seen for a long time. This, however, was not true, but false hypochondria.

II.—The case is a sample of many persons who are not well, who are truly sufferers from demonstrable though little understood nervous disease, but who, through ignorance purely, add to their real disease a hypochondriasis which is removed at once as soon as they obtain correct information. Such patients are in the condition of a man who has fallen and in-

jured an arm, but fears that a fracture has occurred, until the surgeon appears and makes a clear diagnosis of simple sprain. In strictness this is not hypochondriasis at all. It is the just and inevitable apprehension of ignorance—an intellectual rather than an emotional trouble—and is removed by appealing to the intellect, that is, by informing the patient as to the facts. True hypochondriasis, on the other hand, pathophobia (fear of disease), like morbid fear of all kinds, cannot be removed by instructing the patient in the matter. He knows as well as we that his fear is baseless, and he desires to get rid of it, but is powerless to do so until his exhausted nervous system, of which the morbid fear is a sign and symptom, is calmed and strengthened. Real hypochondriasis, or morbid fear of disease, is rarely or never cured by simply giving the patient authoritative information that there is no ground for his fear. The experiment has been tried for ages by the ablest physicians of the world, and it never succeeds and never can succeed. A genuine hypochondriac may cross the continent and all the oceans to consult some famed physician, so great is his confidence in him; but when, on obtaining the interview, he is told that the disease from which he supposes himself to be a victim does not exist in his case, his morbid fear remains unchanged, he is still pathophobic, and very likely goes around consulting physician after physician.

The two phases, intellectual and emotional fear of disease, may coexist, one form passing into the other. The not being able to rightly diagnosticate intellectual fear from emotional fear of disease is the basis of much unfortunate advice given by good physicians to sufferers of this class.

In the above case there was real objective disease at the basis of the intellectual fear of disease. There was local irritation in the prostatic urethra, induced by his evil habit, and revealed by examination and indicated by symptoms.

In the majority of cases of so-called hypochondriasis there is some real and demonstrable disease at the basis of the mental trouble, and which can always be found if we but look closely and examine into the condition of every part and organ; the term hypochondriasis being quite often a cover for our lack of thoroughness in examination. Very rarely indeed do I see a case of morbid fear of disease where the urine, or the liver, or the stomach, or the prostatic urethra are in health. In some instances, no doubt, the demonstrable physical disease may be, in part, the result of the mental disease, mind acting injuriously on body and exciting lesions that can be appreciated by the senses; but in all such cases the physical malady needs and should receive treatment just as if caused in any other way.

This day I am consulted by a physician in regard to a patient of which the following history is given: He is twenty-four years of age; has masturbated by intervals for several years, but not to very great excess. He has had nocturnal emissions for over two years, sometimes several times a night. He has lately fallen in love, and sought medical advice in regard to breaking up his habit, but was repelled by a number of physicians who made light of his history, until he fell into the hands of the gentleman who consulted me about him. His present symptoms are severe insomnia, one or two wet dreams every night, indigestion, extreme nervousness approximating to hysteria, and a demented look.

If this man is not sick, then there is no such state as sickness; if these symptoms are not pathological,

then small-pox is health. If a sufferer with such a history is to be dismissed without either examination or diagnosis, then typhoid fever and broken limbs should be allowed to get well of themselves, or put under so-called "moral treatment." In this case the diagnosis was confirmed by the results of medication. Under a proper use of sedatives, directed not to the mind, but to the body, he soon became better, and was still improving, though not well, when my attention was brought to his case.

CASE XXII.—A young man, twenty-one years old, the son of a physician, began the evil habit when fifteen, kept it up for a year, then stopped suddenly, and in six months came emissions twice weekly.

When he consulted me, he had very many of the diagnostic symptoms of sexual neurasthenia, fear of society, both of men and women, but especially of women; mental depression and tremor of the hands under excitement, and the characteristic atonic voice. His muscular strength was unaffected; he could walk ten miles with ease. The irritability of the genital organs was extreme. At one time he would have emissions even while sitting up, if lascivious thoughts occurred; the weeping penis was noticeable. At one stage of his malady he had had emissions as often as ten or twelve nights in succession.

There is in the above history nothing peculiar or anomalous; it is the history of thousands; but it is instructive and worthy of consideration because it is typical. When a physician has in his own family a case of this kind, and sees him from day to day, and finds himself powerless to help or even relieve; when he sees the symptoms that he has been taught to believe are purely subjective—of the fancy only—growing worse and worse, unfitting the sufferer for life duties, he begins to inquire what can be done; and if he looks closely into the facts, he will find that there is a substratum of reality beneath all these symptoms which cannot be blown away by a word, or dissipated by "moral treatment." If the case were an ordinary patient, he could simply dismiss him as a hypochondriac, tell him, as the books require, that nothing is the matter with him, that he is well enough if he will but think so, and the patient goes his way, and he sees no more of him. He may suppose that his advice has done good, that it has been followed; but if he should keep track of that patient, he would see him passing from his office to the office of some professional brother, and so on, and so on, until he falls, by a force as inevitable as gravity, into the hands of the charlatans, who usually go to the other extreme, and tell the sufferer that unless he takes their advice, he will be dead in six months.

In one's own family, or in one's own person, responsibility cannot be shirked in this way; the evil is ever present with us, and forces us to give it attention. A physician whose son has been under my care for sexual neurasthenia, tells me that he has himself been constantly depressed by seeing the depression of his son without being able to relieve it. In this case the diagnosis of hypochondria had been made again and again; but when his urine was examined by Dr. Mitendorf, it was found to contain spermatozoa to the amount of 20,000 in a specimen of a few ounces, and portions of the urethra were as sensitive as a bare nerve. There was also a redundant prepuce. If all this is hypochondria, then death is hypochondria.

Take the following case, also the son of a most intelligent physician:

CASE XXIII.—The patient was seventeen years of age, and had been attending school, and the im-

portant question which I was to decide was, whether he should go on with his studies or suspend them.

The boy began masturbating at the age of fifteen, but had never, according to his own statement, been very excessive. When he first came to my office he burst into tears, and cried almost like an hysterical woman. He had palmar hyperidrosis and some fear of society; there was likewise chronic injection of the conjunctiva. On examining into his case I gave positive advice that he should go back to his school, meanwhile taking general and local treatment. The results have confirmed the soundness of this advice. He began to improve from the first visit, and resumed his studies with zest. In the space of a month, more had been accomplished, keeping him at work and giving him advice and treatment, than in many months of a long vacation that he had occupied in rowing, riding, walking, and various out-door exercises.

In such cases the mind is acted upon, whatever treatment we use. This cannot be avoided, nor is it desirable to avoid it; but the mental therapeutics is not necessarily the only or even the chief element in the cure, any more than it is in any other disease. Indeed, judging from my own experience and experiments, it would seem that *almost all forms of functional nervous disease are more amenable to mental influence than these cases of sexual exhaustion.* No class of patients that consult us are in greater need of definite and well-directed medical treatment than these, and no class of diseases of the nervous system respond better to such measures. These cases are mostly relievable and curable, but, to accomplish relief and cure, we need positive, objective, and, in some instances, powerful treatment.

POISONING BY INOCULATION FROM AN ANIMAL.

By C. H. HUNT, M.D.,

STANWOOD, IOWA.

THE history of this case is as follows: Mr. R.—; occupation, farmer; aged forty years; dark hair and complexion; tall, heavy-set; bilious temperament, temperate habits, and enjoying good health; while engaged in killing a hog, cut the third finger of the right hand, on the second joint, on the side next the little finger. The cut was one-half inch in length, and about one-sixteenth of an inch in depth. This occurred about three o'clock in the afternoon. As the wound did not bleed, no attention was paid to it at the time. The next day, about the same hour that the cut was made, while the patient was husking corn, the finger began to be painful; in a few minutes a heavy chill followed, the head began to ache, and he grew so weak that he was obliged to sit down on the ground. It was with difficulty that he reached the house. I saw the patient at seven in the evening. Found him sitting near a hot fire, covered with blankets, and shivering with cold, which, he said, had been pretty severe since five o'clock. The finger was swollen and painful, the lymphatic vessels could be traced from the finger to the shoulder, presenting red and inflamed lines; the axillary glands were swollen and very tender. There was headache, pain in the stomach and back; no vomiting had occurred; pulse 120, and presenting the same feeling as it does during an ague chill. Temperature was not taken. Gave him two ounces of whiskey, in which was dissolved one-half grain of morphine. In fifteen min-

utes the whiskey was repeated, and he was put to bed. This procedure was a source of much distress to him, as the least movement would cause the muscles of the whole body to ache, as if he had taken an overdose of strychnine. In half an hour the patient began to grow warmer, and his skin was becoming moist. The whiskey and one-fourth of a grain of morphine was repeated, making six ounces of whiskey and three-fourths of a grain of morphine in one-half hour. The patient feeling somewhat better, I left him, ordering two ounces of whiskey every two hours and one-quarter grain of morphine every three hours.

The morning found him better. During the night he had had a severe cramp of the stomach, which lasted about fifteen minutes. He had also taken two grains of morphine, but had not slept any. The morphine was dropped now, but the whiskey was kept up during the day and then discontinued, and nothing was given except some pills to correct the condition of the bowels.

To all appearances the animal killed was healthy, and none of those who partook of it as food suffered in any way.

The symptoms produced by this wound was like those produced by dissecting wounds; but why the flesh of a healthy hog should cause such a difficulty puzzles me somewhat; perhaps some one can enlighten me.

The *modus operandi* of alcohol upon animal poisons must be in one of two ways, as has been stated by others. Either the alcohol destroys the active principle of the poison by contact, or it places the system in such a condition that the poison has no action upon it; probably the former is true. Morphine undoubtedly acts in the same way, as may be witnessed in the treatment of certain diseases caused by septic poisoning.

THE ILLUMINATION OF CAVITIES BY GEISSLER'S TUBES.

By HORATIO R. BIGELOW, M.D.,

WASHINGTON, D. C.

THE stratification of the electric light, by passing a discharge of the Ruhmkorff coil through glass tubes containing a highly rarefied vapor or gas, has been very satisfactorily investigated by Masson, Grove, Gassiot, Plücker, etc. The tubes made by Geissler, of Bonn, are filled with different gases or vapors, and exhausted so that the pressure does not exceed half a millimetre. At the ends of the tubes are two platinum wires soldered into the glass. The strise given by hydrogen under half a millimetre of pressure are white in the bulbs and red in the capillary parts. The strise in carbonic acid under a quarter millimetre of pressure are greenish. In nitrogen the light is orange-yellow. According to Ganot, "Plücker has found that the light in Geissler's tubes does not depend on the substance of the electrodes, but simply on the nature of the gas or vapor in the tube. He has found that the lights furnished by hydrogen, nitrogen, carbonic oxide, etc., give different spectra when they are decomposed by a prism. The discharge of the coil which passes through a highly rarefied gas would not pass through a perfect vacuum, and the presence of a ponderable substance is absolutely necessary for the passage of electricity. By the aid of a powerful magnet Plücker tried the action of magnetism on the electric discharge in a Geissler's tube, as Davy had done with the ordinary voltaic arc,

and obtained many curious results. He found, where the discharge is perpendicular to the line of the poles, it is separated into two distinct parts, which can be referred to the different action exerted by the electro-magnet in the two extra currents produced in the discharge." It remained for De la Rive to prove, in a most ingenious manner, that magnets act on the light in Geissler's tubes in accordance with the laws with which they act on any other movable conductor. As the intensity of the light does not depend upon the number of elements used, it is best to use a discontinuous current with a single element. With the aid of a duck-bill fenestrated speculum, wherein the blades are of the lightest possible construction, very gratifying results may be obtained in the illumination of the vagina. Two bulbs armed with platinum wires are soldered to a capillary tube; this tube is bent in the middle so that its branches may touch, and at its extremity is twisted upon itself. It is then filled with a rarefied gas, and when the discharge passes through, a very brilliant light appears at the twisted end of the tube. In its use there is no inconvenience to the physician and no discomfort to the patient. Abnormal conditions of the external os, and even those derangements which are due to intra-uterine disorder, may be clearly made out. With a sufficiently long capillary tube, the entire cavity of the womb may be brilliantly illuminated.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES OF TREATMENT.

WAS IT A CASE OF PULMONARY PHTHISIS?

THE following case was exceedingly interesting as illustrating the difficulty and importance of correct diagnosis:

A female patient, eighteen years of age, said that she was ordinarily well, though not very strong, up to four months ago, when she "was taken with a fever." The fever first appeared towards evening, was preceded by a "chilly and cold sensation," and after it had continued for a short time she began to sweat nights—usually about midnight—and also in the daytime, if she went to sleep. These symptoms continued for about three weeks, when she began to cough. The cough was hacking in character, and continued two or three months before she began to "spit up anything." In the meantime she lost flesh and strength. Last week, for the first time, she spat up a small quantity of dark-colored blood. It was then her time to be unwell, but the menstrual flow did not appear. At that time she had nose-bleed. Since she has been sick her menses have been irregular.

The three prominent points in this history are the following:

1. The patient has had a fever during the past four months, which was preceded by chills, and followed by sweating in the night at about twelve o'clock. With this fever there has been considerable loss of flesh and strength.

2. Soon after the fever began she commenced to have a dry, hacking cough, and her menses became irregular.

3. She went on in this manner until last week,

when she spat up a small quantity of dark-colored blood, and at the same time had epistaxis. She had had pain in the left side that had been increased upon taking a long breath.

Physical Examination.—Her hands were cold, her skin was getting yellow, the pulse was increased in frequency, and her temperature was a little less than 100° F. The temperature in this case was regarded as a very important element—one that would decide important questions relating to prognosis. There was some sweating at night, and it must be decided whether the fever from which she had suffered during the past three or four months, and from which she was then suffering, was malarial in character, or whether it was hectic. If it was merely malarial the sweating was due to depreciation of the vital forces, and had a much less grave significance than when it appeared as one of the factors of true hectic.

But it was said neither the presence of pus nor breaking down of lung-tissue are necessary in order to have hectic fever: for hectic is one of the early and prominent symptoms of tuberculosis. It appears before any local signs of pulmonary phthisis are obtained, when tubercle is its cause. If, however, the temperature of an individual is taken, who has sweating at night dependent upon tuberculosis, it will be found that it is elevated *during the day*. He has fever either in the fore part or in the after part of the day, and when he comes to the night, whether sleeping or waking and coughing, he will have profuse perspiration.

On percussion there was slight loss of pulmonary resonance upon the left as compared with the right side, under the clavicle.

On auscultation there was found, anteriorly, upon the left side, prolonged expiration, a wavy inspiration, but no râles; and there was no bronchial character to the respiration. On auscultation posteriorly, a few râles underneath the scapula were heard, but evidence to much extent of pulmonary consolidation was not obtained—the only evidence being prolonged expiration, and, in her case, it was that that was due partly to obstruction in the bronchial tubes and partly to some change in the lung-tissue itself.

The slightly prolonged expiration and the slight dulness upon the left side of the chest lead to the suspicion of the existence of some localized point of lung consolidation. The evidence, however, was only slight, and was questionable. It was thought that the other physical signs simply indicated a localized bronchitis which interfered with the entrance of air into the lung-tissue. The wavy character of the breathing disappeared when the patient took a full inspiration. There was a loud blowing murmur at the base of the heart, and it extended into the carotids.

On auscultation at the lower portion of the chest, evidences of pleurisy upon the left side were found; that is, distinct friction-sounds were heard at the end of inspiration.

The patient had no hereditary tendency to lung disease. She had but little vitality; had become pale from the examination, and almost passed into syncope. She presented herself with a temperature of less than 100° F., but the probabilities were that it rose as high as 100° F. at some time during the twenty-four hours. The fever at first appeared every other day, but during the last week its presence had been recognized every day. The physical signs are scarcely indicative of more than simple bronchitis with slight pleurisy upon one side.

The fever at the same time did not seem to be

that constant fever which is the accompaniment of phthisis.

It was doubted whether one who had had phthisis for three months could present himself with a temperature no higher than 100 or 101° F.

It was believed that the present condition of the patient led away from tubercular phthisis. The countenance was more like that of a chlorotic girl than of a patient suffering from phthisis.

The fact that the blood which she raised was of a dark color, not bright red and frothy, was expected at the time for the occurrence of the menstrual flow, and was accompanied by epistaxis, it was said, lead away from a diagnosis of phthisis.

Again, the physical signs were not sufficient for pulmonary phthisis. The important point to be determined was whether or not there was dulness upon the left side. There was a difference in percussion note upon the left side when compared with that obtained upon the right, but whether the deviation in pitch was due to pleurisy affecting the lower portion of the left lung, thus intensifying the resonance over the upper portion of the lung, or whether it was due to increased respiration in the right lung, was the question to be decided.

There were no evidences of catarrhal phthisis.

The case was treated on the basis that it was not one of phthisis.

Although the patient was in a condition which might lead to its development, she was treated in accordance with the view that there had been introduced into her system some poison, perhaps septic in character, which had given rise to an irregular form of fever. For it quinine was recommended, and she also received some preparation of iron.

The hygienic management of the case was regarded as exceedingly important.

EARLY SYMPTOMS OF PULMONARY PHTHISIS.

Age: Occurs most frequently between twenty and thirty years of age. **Cough:** Hacking, with little or no expectoration. **Cough:** Continuing for several years without being accompanied by a morbid aspect, can, with considerable safety, be set down as against phthisis. **Progressive loss of flesh** is suggestive of phthisis. **Successive pains** in the upper part of the chest and between the shoulders, is significant of phthisis.

Hæmoptysis of itself is very significant, but its absence does not exclude phthisis, nor does its occurrence necessarily indicate the presence of that disease. It has a greater significance when it is preceded and succeeded by a cough.

Persistent elevation of temperature, and persistent increased frequency of the pulse.

Physical Signs.—They are such as indicate slight solidification of lung at the apex on either side, and circumscribed bronchitis limited to the neighborhood of the phthisical affection.

1. Dulness upon delicate percussion.
2. Feebleness of respiratory murmur, or slight broncho-vesicular murmur.
3. Increase of vocal fremitus, and increase of bronchial whisper.
4. Accessory signs; subcrepitant râle limited to upper part of chest on one side, and perhaps at the summit of the chest; pleuritic friction-murmur; true crepitant râle limited to the upper part of the chest; gurgling or crackling sounds limited to the upper part of the chest. All these, or any one of them are important in connection with the history and the other signs mentioned.

BISULPHIDE OF CARBON FOR THE PAINS OF LOCOMOTOR ATAXIA.

A male patient, *æt.* 45, began to have symptoms of his present disease about fifteen years ago. He has locomotor ataxia, and has suffered until quite lately from excruciating pains in his limbs. He has no double vision, but has slight nystagmus. There was marked delay in communication of sensation to the brain from the feet, five or six seconds passing after the foot had been pricked before the sensation was experienced. Besides, there was persistent sensation, the pricking being felt for some time after it had been done. There was also inability to locate impressions correctly. He had not had any trouble with his bowels or bladder, and his sexual desire and capacity were unimpaired. There was no tendon reflex.

By the pains he could predict accurately concerning the weather. For the relief of the fulminating pains, he had resorted to the actual cautery, a variety of remedies, among them gelsemium, which relieved him for a time, and hypodermic injections of morphia. The hypodermic injections impaired his nutrition and produced delirium. All remedies used were discontinued, and for them the bisulphide of carbon was substituted, and, applied to the spine, gave, as the patient claimed, complete relief from all pain.

A second case of locomotor ataxia was seen, in which there was delayed sensation, and also delayed reflex absence of tendon reflex; no double vision, no trouble with bladder or bowels, but marked contraction of pupils. The patient was a midwife and the mother of twelve children.

PROFOUND COMA — CYANOSIS — DYSPNŒA — PULMONARY ŒDEMA — VENESECTON — PROMPT RELIEF.

A male patient, *æt.* 48, was admitted to the hospital in a comatose condition, and besides was intensely cyanotic and had great dyspnœa. According to the history given by his friends, he had an attack of pneumonia about a week before admission, but when admitted the chest was full of fine and large râles, yet gave no evidence of pneumonia. The heart was much enlarged, the pulse was tense, but no cardiac murmurs could be detected, although a very careful examination was made. Death seemed imminent. The house-physician opened a vein in the arm and took twelve ounces of blood. The effect was prompt; the dyspnœa and cyanosis were at once relieved, and the evidence of pulmonary Œdema entirely disappeared within half an hour. The most urgent symptom being relieved, it was found upon further examination that the patient had left hemiplegia. The urine was examined and found to contain albumen in small quantity, granular casts, had a pale color, was acid in reaction, had a specific gravity of 1010, and the quantity passed was large.

There was incontinence of urine and involuntary evacuations from the bowels.

On the day following admission, elaterium was administered. After the operation there was a partial disappearance of the coma, but the patient's intellect still remained impaired.

It was believed that the life of the patient was saved by the venesection. The specific gravity of the urine varied between 1010 and 1014.

EMPHYEMA WITHOUT MARKED CONSTITUTIONAL DISTURBANCE, AND GIVING RISE TO ONLY MODERATE DYSPNŒA.

A case of empyema, occurring in a male patient about twenty-five years of age, presenting interesting

features relating to physical signs and symptomatology. It had the following history: About two years ago he began to cough, spat some blood, had a pain in his side, suffered from night-sweats, but all the acute symptoms passed away within two weeks, and he felt comparatively well. At the end of six months his left side began to swell, and he had moderate dyspnœa. He continued in that condition until March last, when he was tapped; fluid was drawn from the pleural cavity, and the tapping has been repeated. At the present time he feels well, has a good appetite, sleeps well, but suffers still from dyspnœa, and came for the purpose of finding out whether or not fluid had reaccumulated, and if he could be relieved by an operation. On physical examination, the heart was found displaced to the right so far that the apex was beating under the right instead of the left nipple. There were no cardiac murmurs. On percussion and auscultation it was found that the level of the fluid was about two inches above the angle of the scapula, not sufficient in quantity to account for the displacement of the heart. It was believed that the position of the heart represented a condition in which the chest contained more fluid than at present, and that, while so much displaced, adhesions formed which retained it in its abnormal position. The case was one of well-marked empyema [purulent fluid was withdrawn], yet the patient's general condition was very good, and he complained only of moderate dyspnœa. Prognosis was unfavorable. Two plans of treatment were mentioned: *First*, repeated aspiration; *second*, free incision through the chest-wall, and washing out the pleural cavity. In view of the man's good general condition and age, it was advised to first resort to repeated aspiration, and, if marked improvement was not manifest within a few weeks, to make a free incision through the chest-walls with the view of giving him the best chance of recovery.

Progress of Medical Science.

A NEW MODIFICATION OF THE SHOT-BAG FOR COMPRESSION OF ARTERIES.—Dr. A. F. Sawyer, of San Francisco, describes a modification of the shot-bag, which he considers has certain advantages over the methods of compression in ordinary use. It consists of a strong canvas bag three inches in diameter by two and a half feet long, the lower extremity closed by a hollow caoutchouc ball two and one-half inches in diameter, the bag being capable of containing twenty-five pounds of fine bird-shot. The apparatus is suspended from the ceiling in the usual manner, a strip of soft buckskin being placed over the skin to guard against chafing. In the case in which the apparatus was tested, its pressure was well borne, although digital and various instrumental pressures were impossible. The application was continued for six hours and ten minutes, when all pulsation in the tumor (popliteal aneurism) ceased. The advantages claimed are rapid work, accurate gauging of the force employed, and the comfort with which it is borne by the patient.

CELLULITIS OF THE NECK.—A consideration of the literature of this subject, together with the results of his own experience, lead Mr. R. W. Parker to suggest the following as a suitable classification of this affection: 1. Idiopathic (angina Ludovici); 2. Trau-

matic, occurring after injuries and operations; 3. Extension of contiguous inflammation. The idiopathic form is a dangerous, and, most frequently, a fatal disease, occurring concurrently with other and more common forms of epidemic disease, such as erysipelas, measles, scarlet fever, and "putrid sore throat," yet, in the most marked cases, the tonsils and pharynx are described as having been normal. The treatment should be bold and prompt; free incisions into the indurated cellular tissue, deep enough to open up the various sheaths of the deep cervical fascia, must be carefully made, so as to let out the sanious ichor, and thus prevent its burrowing. Surgeons are well acquainted with the traumatic form of cervical cellulitis which is apt to make its appearance after all kinds of injuries to the neck. In its treatment Mr. Parker has found the greatest benefit from the use of liquor plumbi made into a lotion with milk instead of distilled water. The most common form of the disease is that due to the extension of a contiguous inflammation. In its treatment, the fact must be borne in mind that much of the danger arises from the inflammation being seated beneath the deep cervical fascia, the undermost layer of which is continuous with the pericardium.—*The Lancet*, Oct. 25, 1879.

SOME OF THE SEQUELÆ OF SUNSTROKE.—Recovery from sunstroke is frequently incomplete, owing to structural changes in the nerve-centres, giving origin to a variety of symptoms indicative of lesions of a grave character. Sir J. Fayrer, F.R.S., considers these sequelæ more common and more serious than is ordinarily supposed, and he cites some cases whose histories tend to support his position. The apparent restoration to health so often witnessed after attacks of this nature is, in many cases, neither lasting nor real, as a careful examination of their subsequent histories will abundantly show. Relapse and death may occur, or secondary consequences, the result of tissue-changes, may destroy life or impair health and intellect at a later period. Insanity is one of the gravest and most frequent sequelæ of sunstroke. The cases brought forward would seem to show that this is of an acute inflammatory character, attacking the membranes of the brain, and thus the gray matter, so that we find the mental symptoms more clearly defined than the physical. How far an alteration of structure of bony growth may be traced to *coup-de-soleil* is a matter for further consideration; in all the cases the diploë has been found obstructed and the skull-plates thickened, dense, and heavy, with, in two cases, distinct growth of bone; but both these cases are involved in their etiology—in the one case by an early injury, in the other by a decided hereditary taint.—*Brain*, October, 1879.

A PISTOL-BULLET ENCYSTED IN THE BRAIN.—Dr. John E. Gibson, of Nashville, Tenn., reports an autopsy which he made upon a convict who had been shot in the forehead in the year 1874. Cerebral inflammation had set in after the accident, but recovery ensued, and no ill effects, either physical or mental, were observed up to July, 1879, when a short illness of four days terminated in his death. The following is the account of the autopsy:

"Rigor mortis well developed. Removed calvarium in the usual manner. The wound in the os frontis was closed with cartilaginous matter. The membranes of the brain were in a state of extreme congestion. The right anterior lobe was fully one-third smaller than the left. Considerable effusion containing flakes of lymph found upon the surface of the brain. On making a section of the cerebrum,

found a canal running directly through the right anterior lobe, in an antero-posterior direction. The canal was patent throughout, and formed apparently of cicatricial tissue. It stopped about the centre of the right anterior lobe. At its termination was found the bullet, flattened from its contact with the skull. The bullet was enclosed in a sac that seemed to be attached by a pedicle to the upper wall of the canal. The space in which this hanging cyst had play was considerably greater than the diameter of the canal. Two spicula of bone were found just behind the ball, carried there before it. About the centre of the anterior lobe another spiculum, about the size of a ten cent piece, was found."—*Nashville Journal of Medicine and Surgery*, November, 1879.

AUTOMATIC MEDICAL ELECTRICITY.—Dr. Francis Imlach, in the *Practitioner* for October, describes some very ingenious and useful devices for the application of electricity to paralytics. His thesis is this: "Take a hemiplegic patient, and by automatic electric arrangement, make him raise the dragging limb as he walks, and stand as firmly upon it as upon the other; or make a paraplegic patient in whom, for the present, walking is out of the question, rhythmically flex and extend his limbs by alternating electrization of his flexors and extensors—you do more than merely electrize the paralyzed muscles; his expectant attention is directed in turn to each moving limb, and an effort of will is aroused as the oppressive sense of habitual inability is removed." The writer claims to have proved by the use of his apparatus the truth and practical value of these statements. For treating hemiplegias, he uses a faradic battery, electrodes, wires, and an electric sandal. The electrodes consist of flat pieces of thin, flexible metal, quite narrow, and varying from three to five inches long. These can be tied on to any part of the back or extremities; the sandal is made of boxwood and metal, fastened to the naked heel and connected by ordinary insulated wires with the battery and the electrodes. In the case, now, of a left hemiplegic, where it is desired automatically to contract the muscles of the back of the thigh and calf of the leg, the sandal is fastened to the right foot. One electrode is then fastened to the back of the thigh, and another to the back of the leg, both being connected by wires with the sandal and the battery. When the patient, in stepping forward, puts his right heel down, connections are made, a current passes between the two electrodes, contraction takes place in the thigh and leg muscles of the left extremity, which is thus raised up. As the patient progresses the right heel is raised, the current broken, and the left extremity falls naturally forward. This process is continued every time the right heel presses the floor, the left leg and thigh being contracted. Of course the patient can walk no farther than the long wires connecting him with the battery allow, and the exercise must thus be taken indoors. By pursuing the practice, however, for fifteen or twenty minutes every day, very rapid progress is made toward recovery of the full power of the muscles.

By changing the electrodes and sandal, any sets of muscles can be made to contract; and by the use of two sandals paraplegics and staxics can be treated with much, though not equal, benefit.

Dr. Imlach has a number of other arrangements acting on the same automatic principle, by which various other forms of paralyses can be treated. His idea is evidently a good one, and will probably meet with much favor.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 6, 1879.

ASYLUM MANAGEMENT.

To such as are interested in lunatic asylum reforms, the recent report of the Senate Investigating Committee has a significant interest. It will be remembered that in March last a petition, purporting to be signed by over two hundred citizens, among which were several medical men, was presented to the State Senate, praying for an investigation into the present system of managing the lunatic asylums of the State. This document emanated from and received the endorsement of the New York Neurological Society. The profession, knowing the character of many of the members of this body, had a hope that much good would come of the course taken, and awaited events accordingly. It is true, some of the charges against the asylum superintendents were extravagant; but in the main, the profession were prepared to believe that some of them could be properly substantiated.

The Senate acted promptly, and referred it to a committee to take testimony with the view of suggesting any necessary measures of reform. That committee went at the investigation in a very matter-of-fact way, by summoning the petitioners to testify concerning the faith within them. Here, however, we come to a part of our story which, although amusing to the general public, is hardly creditable to the profession. We learn, in the first place, that many of the petitioners wished to withdraw their names, stating that they signed the document under a misapprehension. Among these petitioners were several medical men. But what appears stranger than all, is the fact that one or two of the gentlemen who were active in circulating the petition and obtaining signatures thereto, declined to appear before the committee and give their testimony. All this was very bad to begin with, and naturally made rather an unfavorable impression upon a Senate committee prepared to investigate what appeared to be grave charges, made by a responsible body of scientific gentlemen.

If the comparatively few who had the moral courage to stand up to the rack, had an equal amount of good and available testimony to offer for their side, the investigation might at least have been creditable to all concerned. As it was, however, the complainants were so much at a loss for available facts, that they seemed more inclined to apologize for the course they had taken, than to make a show of acting on the offensive. The whole affair degenerated into a farce in which the would-be reformers were the unfortunate actors. The only redeeming feature in the examination was the skill shown by one or two witnesses in making a great deal out of a very little. But this, as far as testimony was concerned, was of itself a confession of weakness. It is true the medical superintendents were out in full force, and volunteered the cross-examination; but the petitioners should have been forewarned of this, and should have been prepared to fight even against such odds. Well-substantiated facts could not be overthrown by any purely political influence which the superintendents might have brought to bear, nor by any well-balanced argument of the accomplished Commissioner of Lunacy. The Legislative Committee did not show any disposition to suppress facts which might be presented, but evidently tried its best to obtain them from the gentlemen who were willing to testify. As far as the printed testimony shows, the complainants had no facts of real importance; at least, if they had, they did not offer them in their examination.

In view of the opportunities which they might have seized of showing up asylum abuses, and of demonstrating the necessities for reform, the petitioners lost an opportunity of creating a proper public sentiment. For this failure they are accountable to the profession they assumed to represent. More than this, they have aroused on the part of the public a spirit of actual antagonism against any demands for reform in asylum management which will take a long time to overcome. Our legislators can desire no better excuse for lending a deaf ear to the entreaties of petitioners than is afforded by the results of the investigation of the Senate Committee and of the comments thereon, which have been made by the secular press.

The published report of the Committee is quite voluminous. On this account we abstain from reproducing it in full, being content with such a general commentary of its contents as will explain the reasons for the following conclusions of the Senate Committee:

First.—The petition is not substantiated in its allegations by any existing state of facts. The Governor, in his last message to the legislature, has spoken of the satisfactory condition of the State asylums from personal visitation.

Second.—The Board of State Charities, an official visiting body, has never suggested any such defects

or maladministration of any kind, in their annual reports to the Legislature. A special committee of that Board (President M. B. Anderson, of the Rochester University, and E. W. Foster), after examining the State asylums with reference to similar insinuations and allegations, reported on December 15, 1877, that "the community is justified in having entire confidence in the administration of these institutions."

Third.—It appears from the archives of the State Commissioner in Lunacy, as well as from his personal statement before the committee, that since the creation of this office no formal complaints have at any time been made or filed with him against the management or internal administration of any State asylum; and his reports and personal statements before the committee show that no occasions calling for special criticism upon such management or administration have, up to this time, presented themselves.

Fourth.—The insinuation of the petition that the superintendents of these State asylums are not thoroughly trained and thoroughly competent medical men, is too notoriously untrue to require denial.

Fifth.—It is not true, as alleged in the petition, that undergraduates in medicine have been appointed as assistant physicians in State asylums. The charge is a reckless misrepresentation of these officers, and under examination the four persons appearing admitted this. From the statements of the superintendents of asylums, it appeared that in almost every instance assistants have received training in civil or military hospitals, and in other cases an equivalent in medical practice after graduation. Outside of the State asylums it appears that but one undergraduate is employed, and that he obtained his place by examination as to qualifications by the authorized medical examining committee of the institution in which he is employed.

Sixth.—In the judgment of the committee, there is no necessity for investigation or examination into the management of any of the State lunatic asylums. This petition sets forth nothing new or valuable, and all the persons signing it, as far as the committee have been able to ascertain, have no personal knowledge of these institutions, or of the allegations made in the petition, and many of them are so obviously and grossly untrue, that they would seem to be the offspring either of ignorance or malice. In either case they are unworthy of notice.

Seventh.—The assertion that the pathological work done in the asylums is of little account, is sufficiently met by a letter addressed to the committee by Professor John C. Dalton, of New York, who stands in the front rank of his profession as a representative of scientific research, and by the testimony of Dr. Buck-

11.

THE TENEMENT-HOUSE IMPROVEMENTS.

No one can avoid feeling the deepest satisfaction at the results already accomplished in the improvement of the tenement-houses and of their inhabitants. It is only a year ago that the condition of a very large number of these dwellings was utterly disgraceful. One thousand, it is estimated, were not only unfit for habitation, but incapable of being made into proper dwelling-places. Only one-tenth of the tenement-houses were in perfect sanitary condition.

Since the agitation of the matter last spring a number of important measures have been accomplished or put under way. In May the State Legislature passed a law amending the Tenement House Act. By this law no dwelling-house can occupy more than sixty-five per cent. of the lot. The space between floor and ceiling must be at least eight feet; each bed-room must have direct communication with outside air, and every occupant must be allowed six hundred cubic feet of air. Money was also appropriated for a sanitary inspection of the tenement-houses. The passage of this law has had already a remarkably good effect. Builders are putting up better buildings; the sanitary inspection has resulted in securing complete records, with diagrams of the construction and condition of the twenty-one thousand tenement-houses in the city. This is a feat which, so far as we can learn, no other great city has accomplished.

Something has also been done in the way of building new model tenement-houses. Two stock companies have been organized; one has collected subscriptions nearly to the amount of \$300,000; the other has received subscriptions amounting to \$75,000. Each of these companies expects soon to commence the erection of one or more blocks of model tenement-houses. Experiments in Brooklyn have shown that small two- or three-story houses can be put up for \$1,100 a piece. These, at a rental of from \$13 to \$20 per month, could be made to pay good dividends in upper New York. Four of them can be put on a lot of 25 by 100 feet.

It seems, however, that there are more projects for building than actual work, as far as this city is concerned. The land costs too much. It is probable, therefore, that in the improvement of dwellings for our poor, more of the work will have to consist in seeing that future tenement blocks do not violate State and sanitary law; and, further, in seeing that the houses already built are kept clean, and that sanitary instruction is given to the lower classes. This latter cannot be too strongly insisted on. Already much good is noticed by the Health Board inspectors as the result of their visits, advice, and circulars. The plan of buying or leasing old and dirty houses, and putting them under strict sanitary regulations, in the few places where it has been tried, has

worked wonders, not only to the health, but the morals of the population. It seems to be the rule that a community is virtuous and well-behaved in inverse proportion to the amount of dirt that environs its life.

The project of giving sanitary instruction to the poor has met with so much favor that an association is to be organized for the purpose of forwarding this end. Such a society could, undoubtedly, do much good. But it will have also many difficulties to encounter. There is a large proportion of the poor, and especially the foreign poor, who will not be taught cleanliness. They will have to be compelled to it; and such compulsion must come chiefly through the landlords. It is this class, a class representing \$200,000,000 worth of property, who must be appealed to, and who have it in their power to secure the greater benefits to the city. The general public sentiment, and the increased activity of the Health Board will assist toward the desired ends of sanitary instruction and reform; but there is much hard work to be done before the best possible results can be reached.

Reviews and Notices of Books.

THE TREATMENT OF DISEASE BY THE HYPODERMIC METHOD. A Manual of Hypodermic Medication. By ROBERTS BARTHOLOW, M.A., M.D., LL.D., Professor of Materia Medica and General Therapeutics, in the Jefferson Medical College of Philadelphia; author of a Treatise on Materia Medica and Therapeutics, etc. Third Edition. Enlarged. Philadelphia: J. B. Lippincott & Co. 1879. Pp. 249.

THE author of this volume is to be congratulated upon the amount of information on hypodermic medication that he has condensed in this book. While almost every practitioner of medicine now carries his hypodermic syringe with him, it is seldom used except for the introduction of the salts of opium, and even those who may desire to make a more general application of this method are prevented from a want of knowledge of the solution to be used, the dose, and physiological effects. To all such, this book will prove of great value. It is divided into two parts, one on "The History, Technology and General Therapeutics of Hypodermic Medication;" the other on Special Therapeutics, and consists of twenty-three chapters on those substances that may be used hypodermically, giving under each drug the solution or solutions that may be used; second, the dose; then the physiological effect, and lastly the "Therapy." In this third edition he has added a chapter on the morphia-habit and its treatment, one on chloroform, chloral hydrate, apomorphia, pilocarpine, duboisia, and aquapuncture. He has omitted to make any mention of the use of whiskey in hypodermic injection, an omission we wonder at, as its use is much more general than many of the substances he had treated of.

Our author enters his protest against allowing patients to use a hypodermic, and considers it one of the most common causes of the opium-habit. The book throughout shows the result of close observation and study, being the record to a great extent of

his own observations on the physiological and therapeutic effects of hypodermic medication. It is a book that will well repay a careful perusal.

GUIDE TO THE EXAMINATION OF URINE, WITH SPECIAL REFERENCE TO THE DISEASES OF THE URINARY APPARATUS. By Prof. K. B. HOFFMAN and Dr. R. ULTMANN. From the Second Edition, translated and edited by Prof. Forchheimer. Cincinnati: Peter G. Thomson. 1879.

THIS little book, as the authors state in the preface to the first edition, is intended not for the physiological chemist, but for the student and the busy practitioner, and it is undoubtedly well adapted to supply the needs of both those classes of the profession. The various tests for the urine, and the methods of examination, are described concisely and clearly, so that they can be readily grasped by the mind of the beginner, and at the same time with sufficient exhaustiveness to satisfy the practitioner who wants to refresh his memory concerning them, without too much expenditure of time. The subjects are treated in the usual sequence: first, a brief chapter on the histology of the urinary apparatus, then compact descriptions of the physiological properties and chemical composition of the urine, of the abnormal constituents found in it, and of the methods of qualitative and approximate analyses, and finally two chapters on the diagnostic signs in general and local diseases furnished by the urine. The book seems in all respects to be fully up to the times. The translator has done his work fairly well, but without any attempt at elegance of diction. The one great fault of the book is the insufficient number of the illustrations, which should form a very important part in all treatises on the examination of the urine. We must mention, however, that the few illustrations given were interpolated by the translator, the German editions having contained none at all.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

SURGICAL SECTION.

Stated Meeting, Nov. 11, 1879.

DR. LEWIS A. SAYRE, CHAIRMAN, PRO TEM.

THE Section was called to order at 8 P.M., and the minutes of the last stated meeting were read by the Secretary, DR. A. B. DE LUNA.

UNUSUAL DEFORMITY OF THE HAND BY CICATRICAL CONTRACTION.

DR. A. C. POST reported a case of unusual deformity of the hand occasioned by cicatricial contraction following a burn. One year after a burn received on the back of the hand, the little finger was found behind the ring-finger, and was held in that position by a dense band which extended across to the index finger. By dividing the band and securing the hand to a splint, he succeeded, in the course of a few weeks, in entirely overcoming the deformity, and in securing nearly full motion.

THE MECHANICAL TREATMENT OF HIP-JOINT DISEASE.

DR. JOS. C. HUTCHISON read a brief paper upon the above subject, and presented a patient under treat-

ment according to the plan which he recommended. The apparatus consists of an elevated shoe worn on the sound side, and a pair of crutches. As the patient stands on his crutches, the diseased limb is suspended. The shoe is high enough to prevent the toes of the affected side from touching the ground, and the sole should be covered with leather to avoid noise in walking. [For a complete description of the indications for treatment of hip-joint disease, see MEDICAL RECORD, vol. xv., No. 19.]

The paper being before the Section, discussion was opened by DR. C. FAYETTE TAYLOR, who stated that his experience corroborated, in part, that related by Dr. Hutchison. About fourteen and a half years ago a case of hip-joint disease came from Delaware County to him for treatment, and the circumstances were such that he was unable to treat it except by the method described. He directed the patient to have a sole four inches high put on the shoe worn on the sound side, so that it would be impossible for the toes on the affected side to touch the ground; to walk on crutches as long as she could at a time, and also to try to relax the muscles about the hip as much as possible. One year from that time the patient came to him again, when he found that all the symptoms of hip-joint disease had disappeared, and there was complete motion at the joint. For twelve years he had used the self-supporting joint splint, which protected the joint and kept the leg suspended, and unquestionably part of the benefit derived was on account of the ability of patients to suspend the leg longer than they would otherwise be able to do. Yet there was danger in the method, for the patient, who returned, came with the ligaments of the knee-joint so relaxed by the continuous strain upon them produced by the weight of the leg alone, that she was unable to walk. The same result might occur while using the self-supporting joint splint, unless it was protected.

Dr. Taylor further remarked that he suspected he had made a mistake in diagnosis in the case above mentioned, but about one year ago he had the opportunity to examine the affected limb, and found that the trochanter upon that side was about one inch higher than the other; the knee was yet weak. There was no reason to doubt that the girl suffered formerly from hip-joint disease.

DR. A. B. JUDSON remarked that while Dr. Hutchison did not claim any originality in his method of treating hip-joint disease, because it was founded upon principles which had been recognized for several years, and had been carried into practice by Dr. Thomas, of Liverpool, it was an innovation for which Dr. H. deserved great credit. Of course, he must abide the test of time regarding the efficacy of this simple means of treating a most formidable joint affection.

DR. A. C. POST said that a few weeks ago he saw a patient suffering from morbus coxarius, who was wearing the self-supporting splint, and was entirely free from pain while standing, and the mother stated that extension was made at night, and that the limb was painful when extension was not made.

DR. L. M. YALE remarked that he had been highly interested in the paper, because, if the plan of treatment proposed had a general practical application, it would be of immense assistance to those who were obliged to deal with cases which could not procure desirable apparatus. Further experience was desirable.

DR. V. P. GIBNEY stated that he had had a limited experience in the plan of treatment proposed, not

sufficient, however, to enable him to make a report; yet early cases seemed to be doing very well under its application.

There were many cases of hip-joint disease which recovered without treatment, but in the genuine articular disease, that which produced destruction of the joint and surrounding tissues, he had failed to see any treatment which had an effect to absolutely cure the patient, with motion and the limb restored to the same usefulness it had before being attacked by the disease. Any plan of treatment that promised to bring about that result was a desideratum.

DR. GARRISH asked Dr. Hutchison if he would begin his plan of treatment in the acute stage.

He had under his care a patient who had had hip-joint disease on one side, had been treated and recovered, and now was suffering from the same disease, in its acute stage, upon the opposite side; and he proposed to adopt Dr. H.'s plan, if it was applicable in the acute stage, and compare the results.

DR. HUTCHISON replied that he put his plan of treatment into operation as early as possible. Of course there were cases in which the symptoms were so severe that it became necessary to put the patient in bed, but they were exceptional.

THE CHAIRMAN remarked that it was the constant, persistent, muscular contraction, to keep the joint still, which was one of the great elements in breaking down the nervous system of the patient, and produced constitutional disturbance. Constant muscular contraction kept up constant pressure of the diseased surfaces, one upon the other, absorption occurred, and, when it had extended sufficiently far, the acetabulum was perforated and the head, or rather the upper extremity of the femur, rode through it. It was to overcome the constant and persistent action, on the part of the muscles, that some mechanical apparatus was employed which relieved them, and at the same time simply kept the diseased surfaces from coming in contact with each other. [Extension and counter-extension.] By fulfilling these indications, the exciting cause of the muscular contractions was removed, and with its removal went the tendency to reflex muscular movements, and at the same time more or less motion in the joint was obtained.

With reference to Dr. Thomas's instrument, he thought the inventor had not the slightest ideas regarding the pathology or the philosophy of treatment of hip-joint disease; that it was simply abominable, and was not the embodiment of any principle whatever. He suggested that the tendency to pull upon the knee-joint too much could be overcome by applying adhesive plaster.

DR. HUTCHISON regarded Dr. Thomas's instrument as diabolical, and one at the farthest remove from the plan of treatment which had just been described. He agreed with the Chairman that extension should be employed to prevent the head of the bone from going through the acetabulum, but he thought the weight of the leg was sufficient to do so, because it was one-fifth of the entire weight of the body, and, therefore, more than was employed when the patient was put into bed and a weight and pulley attached. He had had several cases in which recovery was so perfect that he did not know, from present examination, which limb was affected.

THE CHAIRMAN remarked he was very glad to learn that Dr. Hutchison had had many cases recover so completely, for he himself had had many such cases, but subsequently the diagnosis had been questioned.

DR. GIBNEY remarked, regarding a suspicion that error in diagnosis had been made, that, on a question

where there was so much at stake, one should be able to give all the symptoms and the dates of examination throughout the entire course of the case, and that could be done only by noting them in full as the different examinations were made. Memory could not be trusted regarding the facts found in the early stage, and all the points bearing upon it. He had found himself in a condition to doubt diagnosis, but by making full notes he had found that he was overwhelmingly in error. He should be glad to see a case of *complete* recovery from hip-joint disease; not primary synovitis of the hip-joint, which would have gotten well without apparatus, but that slow chronic disease which begins and progresses as a primary bone disease, the surrounding tissues becoming involved, secondary synovitis developed. It was in such cases as the latter that he would like to see a cure effected without leaving some marked trace of the affection.

DR. TAYLOR stated that during the last year he had been making diagrams of the whole body of the patient, and he had found that in a great many instances where an ordinary examination would not discover any difference between the two limbs, there had been a little difference in the comparative position occupied by the trochanter upon either side. He thought that answered Dr. Gibney's query precisely, for the reason that in many in which, diagnosis being doubted, there had been found evidence of slight previous bony disease, not recognizable by ordinary methods of examination, but sufficient to confirm the diagnosis as correct.

DR. GIBNEY thought that such diagrams would be found to be unreliable, and must be placed in the large collection of signs that failed in a certain proportion of cases.

The Section then adjourned.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Annual Meeting, Nov. 24, 1879.

DR. A. E. M. PURDY, VICE-PRESIDENT, IN THE CHAIR. The Society was called to order at 8 P.M., and, on motion, the minutes of the Annual Meeting, as published, were accepted.

THE SECRETARY read the following communication from Dr. Freeman J. Bumstead, President:

*"To the Members of the Medical Society of the County of New York:—*In my election as your presiding officer, a year ago, I fully appreciated the honor of the appointment, and hoped that my presidency might redound to the interest and welfare of the Society. Unfortunately, during the past year, a severe accident and many weeks of serious illness have greatly interfered with carrying out my purpose. Under these circumstances I can only crave your kind indulgence. Writing from a sick bed, I am unable at present to say more, and must close with the expression of my best wishes for the Society. Sincerely yours."

THE VICE-PRESIDENT then presented the gold medal to Dr. Samuel Sexton, the successful prize essayist.

The minutes of the meeting were then read and the Society adjourned.

Stated Meeting, Nov. 24, 1879.

DR. A. E. M. PURDY, PRESIDENT, IN THE CHAIR.

The Society was called to order at 8.10 P.M.

There being no minutes to read, DR. HORACE P.

FARNHAM, Vice-President, was called to the chair, and the President delivered his inaugural address. The following is an abstract:

PRESIDENT'S ADDRESS.

After thanking the Society for the honor it had conferred upon him in electing him as their presiding officer, the President assured the members that he should most cheerfully unite with them in all those measures which tended to advance their common interests and elevate their chosen profession. It should be his endeavor to discharge his official duties without fear or partiality, and while he endeavored to carry out the laws of the State relative to the practice of medicine, he should hope for the Society's hearty support and co-operation.

The President then gave a brief review of the history of the establishment of medical societies in the State of New York. It was not until after the middle of the last century that the first law regulating the practice of physic and surgery in this city was enacted, and not until its very close that the first general regulation of the profession of medicine was adopted. "The organization of the State Medical Society and of its branches in the various counties of the State, a history of the successful efforts to establish order in a profession where all had been confusion, is an example which we will do well to follow, and a record we should strive to sustain unblemished." He then proceeded to present the objects for which the Society was organized: First, and primarily, to regulate the practice of physic and surgery; and second, to contribute to the diffusion of true science, and particularly to the knowledge of the healing art.

It was not intended that the Society should be a purely scientific body, and in the light of that view, the President discussed the objects for which the Society was established under two heads:

1. The regulation; and
2. The improvement of the practice of our profession.

For the attainment of the first he believed the existing laws of this State, the system of ethics, and the edicts of the State Medical Society, contained provisions which, if properly regarded, will, in a measure, lead to the suppression of quackery. On this point extensive quotations were made from the recent report of the Board of Censors, regarding the facility with which unqualified persons may obtain licenses to practice medicine, and how the qualifications at present demanded can be rigidly enforced.

Some physicians, in pursuit of an interest distinct from the honor of the science, had acted with candor—with the instincts and manners of gentlemen, and disdaining artifice, while others, impelled by necessity or by baser motives, had recourse to mean and untrustworthy tricks to raise their importance among the uneducated. Some of these acts are mentioned in the Code of Ethics, and quotations were made from Part VI. of the System of Medical Ethics of the State Society, and at the time of their adoption the provisions appeared to be sufficient to exercise a healthy restraint over those disposed to violate them. But the Society had fallen upon different times, and, in its perplexity, had asked the State Medical Society in 1878 for a definition of what was meant by *public advertising*, but no response was made; consequently the Medical Society of the County is suffering from the effects of a system of rules which, at the least, need revision.

The manner of reaching so-called regular physicians who are not members of the Medical Society of

the County was presented by the President as follows :

The President of the County Society should notify physicians not members of that Society, in accordance with Section 1 of the Medical Act of 1827. If the physician so notified fails to comply with notification he forfeits his license, and Section 3 of Act of — declares that it shall be a misdemeanor to practise without a license, and fixes a penalty for so doing. By the special acts incorporating the several medical colleges, their diplomas are made "licenses." "As a society especially chartered to regulate the practise of physic and surgery, have we done the full measure of our duty? If not let us then awake and make an earnest attempt to expiate our past omissions." The President then made brief allusion to the second object of the Society, and expressed his earnest desire to make the stated meetings of the greatest scientific interest.

DUTIES OF DELEGATIONS AND COMMITTEES.

He then spoke of the duties of delegates and of some of the committees. He believed that the Society could instruct its delegates, and that the resolutions instructing delegates were as binding and compulsory as any other resolutions of the Society.

He also believed that "the Committee on Ethics should take cognizance of all patent and public breaches of medical ethics," whether the same were brought to their notice anonymously or otherwise.

THE PRESIDENT then announced the following standing committees :

Committee on Ethics: Drs. Saml. Sexton, Chairman; J. R. Leaming, Wm. M. Polk, J. S. Bryant, and C. Cleveland.

Committee on Hygiene: Drs. J. C. Peters, Chairman; Chas. C. Lee, E. G. Janeway, C. E. Billington, and A. B. Judson.

Committee on Registration: Drs. H. G. Piffard, Chairman; E. D. Hudson and Laurence Johnson.

Committee on Prize Essays: Drs. Fordyce Barker, Chairman; E. Eliot and Austin Flint.

Auditing Committee: Drs. Wm. M. Chamberlain and E. Eliot.

REPORT OF THE COMITIA MINORA.

THE SECRETARY then read the report of the Comitia Minora.

On motion, the report was divided, and the portion relating to granting certificates of membership was adopted.

The portion relating to a resolution introduced by Dr. Piffard at the Annual Meeting in October, and referred to the Comitia, providing that the Society should not respond to the assessment made by the State Medical Society for the publication of its Scientific Transactions, and laid upon the table by the Comitia Minora, gave rise to discussion, which terminated in the adoption of the following resolution offered by Dr. D. B. St. John Roosa :

Resolved, That the Treasurer be instructed to pay the assessment made by the State Medical Society for the publication of its Transactions for the year 1879.

The paper for the evening was read by Dr. Wm. T. Lusk, and entitled

THE PROGNOSIS OF THE CESAREAN OPERATION.

The paper consisted in a careful and brief résumé of the statistics which have been published regarding Cesarean section, with especial reference to the time of operating, and the surroundings of the patient.

A very large proportion of the entire number of tabulated cases had been derived from reports of lying-in hospitals, in which the showing for all operations was much less favorable than for the same operations performed in private practice, or under specially favorable hospital accommodations. The success in certain districts by certain operators, should not place the operation under ban because in other places it had not succeeded. Why the operation had so often ended fatally could be explained by the fact that it had been performed and the patient remained in an impaired atmosphere of a maternity hospital—surroundings which would make ovariectomy, with its present success, equally fatal as had been the Cesarean section. The circumstances under which Michaelis operated were such as to render the chances of success almost none, and yet his statistics had continuously appeared as a comment on the safety of the operation. In private practice, delay in performing the operation until the woman became exhausted, even when decided to resort to it, had materially increased the rate of its mortality.

The conclusion reached by Dr. Lusk was that when the Cesarean section was performed without delay, before exhaustion manifested itself, and was performed under as favorable circumstances as those at present insisted upon in the operation of ovariectomy, the degree of success obtained by Keyser of 81 per cent., or by Harris of 70 per cent., might be expected and perhaps exceeded.

THE PRESIDENT announced that Dr. John S. Billings, U.S.A., would read a paper at the Stated Meeting for December.

The Society then adjourned.

CHICAGO GYNÆCOLOGICAL SOCIETY.

Meeting of September 26, 1879.

PERIMETRIC INFLAMMATION.

DR. H. P. MERRIMAN read a paper on *Perimetric Inflammation*. By this term he included all the inflammations of both peritoneum and cellular tissue about the uterus. He preferred this name to pelvic abscess, pelvic cellulitis, perimetritis, etc. He differed from Dr. Thomas, who believed there was no chronic peritoneal cellulitis; he thought the chronic inflammation was common. Evidence of this was to be found in tenderness about the uterus on examination, particularly at points of slight induration. Such points of induration and tenderness, as well as malpositions of the uterus from adhesions due to inflammation, were to be found in a large proportion of cases of uterine disease. Perimetric inflammations always involved both the peritoneum and the cellular tissue. The most frequent seat of the beginning of the inflammation was in the cellular tissue, in the folds of the broad ligament, and on the left side it occurred more than twice as frequently as on the right.

He believed, according to the prevalent doctrine, that the inflammation was usually secondary to the same condition existing in the uterus, Fallopian tubes, or ovaries. He repeated, with approbation, Emmet's treatment with rest, hot injections, etc.

DR. NELSON said it was highly important, in treating cases of metritis and endometritis, to make sure no chronic perimetritis existed; for treatment proper for the former might greatly aggravate the latter, if present. He related the case of a pregnant woman where, with varicose veins of the left leg and thigh, there was a varicose state of the vessels of the left side

of the cervix and uterus, while the right side was normal. He thought this gave a hint as to the reason of the chronicity of many cases of uterine inflammation. He thought perimetritic inflammations were generally due to some traumatism, such as falls, lifting heavy weights, or violent coitus, with disproportion between organs.

DR. DE L. MILLER said the numerous terms employed to designate inflammations about the uterus was an over-refinement of medical writers. He did not think acute inflammation was confined to a single structure within the female pelvis. Cold-catching during menstruation was responsible for many cases of perimetritic inflammation. He strongly condemned the prevalent habit among women of taking cold vaginal injections immediately after coitus. Perimetritis frequently caused symptoms of other affections for which patients were treated, of course uselessly. When the inflammation was near the origin of the sciatic nerve, such symptoms were induced as had led to a course of treatment for sciatica being prescribed.

A measure of treatment he favored was counter-irritation by means of a blister over the hypogastrium; this to be fomented a few hours, and then anointed with a mixture of mercurial ointment, powdered camphor, and powdered opium, in the proportion of eight parts of the first, two of the second, and one of the third. Injections of hot water should be used, followed by the introduction of carbolized cotton saturated with glycerine, with opium.

DR. RABER believed that acute perimetritis seldom occurred as a primary affection, but was induced by inflammation of the uterus or ovaries, with the aid of some aggravating circumstance.

In the acute form, leeches, hot fomentations over the hypogastrium, and sitz-baths were to be used for local treatment.

DR. SAWYER thought perimetritic inflammations were frequently due to coitus during or near the menstrual period. This greatly increased the natural congestion at such times. He thought abortions often due to a similar immoderate and improper indulgence.

DR. C. W. EARLE alluded to the use of tents of sponge, laminaria, and elm as frequently producing perimetritis. Metallic dilating instruments might produce the same result. Such measures, he was convinced, should be used with great caution. He related two cases where the perimetritis was undoubtedly produced by the careless use of these instruments.

DR. H. W. JONES said sponge-tents often did produce the disease under discussion. Another cause not previously noted, was the abstraction of heat from the feet of sewing women by the metallic treadles of the machines they used.

CHEST-DEVELOPMENT AND CONSUMPTION.—It is stated that, during the last twenty-five years, not a single singer at St. Petersburg has died of consumption, although this disease has outstripped all others, and now holds the first place among the causes of death at the Russian capital. From this and other facts, Dr. Vasilieff draws an inference in favor of the exercise involved in singing, as a preventive measure against consumption. *The Lancet*, in quoting this conclusion, very properly warns the reader against adopting it too readily. It may either happen that singers are not consumptive, because they can use their throat and chest freely; or that consumptive persons are not singers, because the weakness that precedes disease incapacitates the chest and throat for exertion.

Correspondence.

PATHOGENETIC BACTERIA IN SALT-WATER MARSHES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In studying the infusorial life in sweet- and salt-water bodies, I was soon struck by the almost general absence of bacteria in stagnant water, pools, marshes, etc. Around carcasses of larger animals they are always found in abundance, but they are confined to a limited area around the putrefying substance; they do not spread through the whole body of water. Knowing the widespread occurrence of bacteria in the atmosphere, I was the more astonished, but failed to find an explanation for this apparently paradoxical fact. Meanwhile, observations in the fall of last year gave me a satisfactory solution of the problem. In the beginning of fall, in the months of September and October, infusorial life is the richest and most variable.

Having exposed to the air glass jars containing plants and samples of water from different localities, I soon found certain jars full of wrigglers, the larvæ of mosquitoes (*Culex pipiens*) bouncing with the greatest velocity through the water, which proved to be almost entirely deprived of infusorial life. In the struggle for existence, the wrigglers consume all the weaker micro-organisms, and the only infusoria surviving the struggle are the largest Hypotrichous ciliata, such as *stylonychia*, *euplotes*, etc.

Closer observation revealed small brownish lumps of a velvety appearance, deposited on the surface of the water, and containing a large number of mosquito eggs, which after a few days are transformed into larvæ. As mosquitoes breed at an enormous rate, the water is soon swarming with wrigglers. To prevent the destruction of my stock for microscopical examination, I had to cover the jars to exclude mosquitoes.

Septic liquids containing putrid meat and decaying plants, giving off a most terrible stench, were purified after wrigglers developed therein, and feasted upon the myriads of bacteria, flagellata, etc. The liquids became perfectly clear, transparent, and odorless—the bacteria at the same time disappearing entirely. Thus I had found in wrigglers the most important factor for controlling and preventing septic processes. Undoubtedly the wrigglers are substituted in other countries by the larvæ of other insects. The scarcity of bacteria, or septic infusoria in stagnant water is lucidly explained by the abundance of wrigglers—they bearing to each other the relation of cause and effect.

Into the study of the etiology of mycotic diseases enters therefore a new element, viz., the conditions regulating the development of the enemies of pathogenetic infusoria—in particular that of the wrigglers.

The present frequent occurrence of septic infusoria will find an easy explanation in the scarcity of wrigglers, which scarcity was brought on in the following manner. The great and sudden reduction of temperature in the latter part of September caused the destruction of mosquitoes, especially the females. Although the cold days were followed immediately by hot weather, only a few struggling individuals were left behind, the principal stock having been killed. A jar with a lively breed of wrigglers in my possession, dates from the beginning of October.

Later on, mosquitoes ceased to annoy me, and I did not need to protect the jars any longer. This scarcity of wrigglers, combined with an unusual high temperature, so favorable to the development of infusorial life, are sufficient to explain the present frequent occurrence of septic infusoria.

Among the pathogenetic bacteria swarming at present in stagnant waters, I wish to allude in particular to *Spirillum undula*, generally of much rarer occurrence than the other septic bacteria. As well known, Obermeier described in *Ctbl.*, 1873, No. 10, a micro-organism resembling *Spirillum tenue*, possessing the same rapid corkscrew-like movement, and living in the blood of patients suffering from recurrent fever. *Spirillum undula* of comparatively large size is a conspicuous object for microscopical examination, and scarcely fails to be detected if present. The transition from the latent or passive state—which state may be easily procured by exposure to cold—to the active state, is readily observed and produced at will. This interesting phenomenon illustrates fully the appearance and disappearance of certain mycotic diseases, and their dependence upon cosmic agencies.

J. J. FRIEDRICH.

74 ST. MARK'S PLACE, NOV. 19, 1879.

DETERMINATION OF SEX IN UTERO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—Under the above heading there have been several articles in support of Prof. Thury's law. A recent case, which seems to me to be what would probably be styled by its supporters as an exception, is as follows:

Mrs. — had a very free menstrual period, February 3d; was confined November 19th; child male; born 6 A.M.—counting back 280 days, February 12th, or nine days after the period that conception occurred. The mother says that she went a week longer than she had calculated on; hence I consider it safe to reckon back 280 days rather than 273 days. And here let me state that in my experience, when exact dates are known, if the product is a male, birth is usually 280 days from the time of conception, but if a female, usually only 273 days. Yours, etc.,

S—.

RHODE ISLAND, NOV. 20, 1879.

CONCERNING SO-CALLED PATENTED MEDICINES.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In his remarks on "Pharmacopoeial Remedies," in the MEDICAL RECORD of last Saturday, "Pharmacopoeia" says: "Among the proprietary, trade-marked, and patented medicines largely used by some even eminent physicians, are: McMunn's Elixir, Chlorodyne, and Winslow's Soothing Syrup." Now I beg leave to ask "Pharmacopoeia" to explain what is patented in these preparations? What is the reason he calls them patented, or any one of them? I, for my part, venture to say that there is nothing patented about them nor any one of them. The word *patented* used in common parlance is utterly incorrect, and should not be used carelessly by a writer in the MEDICAL RECORD. True, there are legions of worthless and dangerous preparations, both proprietary and trade-marked, and it is decidedly a good idea to expose them in medical journals, and show

physicians what is a preferable prescription to them; but I ask "Pharmacopoeia" to name a worthless or dangerous preparation in the market which is *patented*? I do not intend in these lines to break a lance for either proprietary, trade-marked, or patented preparations. I only wish to correct a palpable error in which neither pharmacists nor physicians should fall.

JULIUS FEHR.

HOBOKEN, N. J., NOV. 24, 1879.

CORNEAL ABRASIONS CAUSED BY FINGER-NAIL SCRATCHES—TREATMENT.

TO THE EDITOR OF THE MEDICAL RECORD.

DR. GALEZOWISKI, in his preface to Dr. A. Yvert's late work "—Wounds of the Eyeball—refers to certain corneal wounds due to the finger-nails of infants, the wounds being very painful and difficult to heal, lasting for weeks and months. The wounds are generally irregular, with small superficial flaps, which lift at each movement of the eyelids. His treatment is to cut off the small flaps.

A somewhat fuller description than the above may not be out of place. The infants scratch their mothers' eyes, not their own. The appearance of the injured eye is sometimes alarming, lids red and swollen, profuse lachrymation, intolerance of light with severe pain in eyeball, and great injection of conjunctival vessels. It is not difficult to see the corneal lesion. The scratch is generally an irregular furrow with unequal edges. The slightly raised edges are constantly rubbed by the lids at each movement of the eyeball. The constant chafing of the lids causes the pain and prevents healing. As to treatment, Dr. G.'s method is excellent, if the flap is only large enough to cut off; but in every case prompt healing can be secured by keeping the eye at rest by means of a compress bandage. The bandage must be firm enough to prevent the lids moving.

PETER A. CALLAN,

Surgeon New York Eye and Ear Infirmary.

EXPERT TESTIMONY.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In the RECORD of Nov. 8th I notice a quotation from the *Boston Medical and Surgical Journal* on the deficiencies of medical expert testimony. The deficiencies set forth in the article are: "first, a most conspicuous partisanship, even in questions of purely scientific character, the experts being practically retained on one side or the other, and expected to help that side; second, the employment of pretenders and charlatans; third, the fact that the expert's compensation often depends on the result of the trial; fourth, a lack of integrity on the part of the expert, even when he is a person of ability; finally, although there are experts who are both honest and able, there is no system by which their services can be equally applied, for only the party which has money can secure such persons, and the other side must get what they can."

As a remedy for these deficiencies I submit the following plan for consideration and discussion:

Let each State, by act of legislature, be divided

* *Traité Pratique et Clinique des Blessures de l'Œil*, par A. Yvert, Paris, France.

into districts equal in number and area to the judicial districts in the State. For each district let one or more physicians be appointed as medical experts, the term of office to extend over a certain number of years, say the same number as that of the president-judge of the district to which he is appointed. Before receiving his appointment he should be thoroughly examined by a State board of competent physicians created for the purpose. After passing a satisfactory examination, his name should be submitted to the Governor of the State, in whom should be vested the power of appointing. He should be paid a sufficient salary for his services as expert, either by the State or district in which he holds his office, and should be a resident of that district.

It seems to me an act by the legislature, such as that of which the outlines are here presented, would entirely correct the deficiencies alluded to above. It would remove the partisanship, by placing the expert on as impartial ground as the judge himself; it would be impossible for pretender or charlatan to obtain the position. The expert's compensation would not depend on the result of the trial, and, therefore he would not be tempted, for the sake of gain, to give false testimony; nor is it likely that, from the impartial ground he would occupy, he would lack integrity. Lastly, his services would apply equally to all, rich or poor. As the judge decides legal points, so would the expert decide medical points.

F. P. BALL.

SALONA, PA., Nov. 13, 1879.

THE USE OF THE PRONOUN "WE."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—I crave space to enter a protest against the abuse of your editorial prerogative and of English grammar, perpetrated by not a few of your contributors and correspondents who persist in pronouncing themselves "we" (not collectively, but individually). The use of the plural pronoun in editorial writing is justified by the hypothesis that it expresses the conjoint wisdom of an editorial staff; but why a writer who proclaims his unipersonality by placing his name either at the top of his paper, or at the bottom of his epistle, should describe himself in the plural number, as if he were "two single gentlemen rolled into one"—unless, perhaps, it be on the abstract principle of the sovereignty of each and every American citizen—passeth the comprehension and the patience of

Yours, etc.,
Ego.

CRESYLIC ACID IN THE TREATMENT OF WHOOPING-COUGH.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In the last number of the "American Journal of the Medical Sciences" is an article by Prof. J. Lewis Smith, of New York, in which he relates his experience with carbolic acid (used in a steam atomizer) in the treatment of whooping-cough.

Last May it was my privilege to have under my care fifteen cases of pertussis in the "Sheltering Arms Nursery."

For a week the treatment was quinine bromide, but the disease was not arrested.

An apparatus for vaporizing "cresolene" was then employed, and the quinine stopped; almost immediately the paroxysms were relieved.

Unfortunately at that time Prof. Smith had not taught me to record the number of paroxysms, and my notes of the cases are very indefinite. It can only be said that the results were most satisfactory.

My colleague did not use the vaporizer during his service. When I again came on duty, I found two new cases well established, the paroxysms very frequent, and the children much exhausted by their severity and the accompanying vomiting. Several other children were coughing with that quick percussive cough so characteristic of the first stage.

The vaporizers were started, and after forty-eight hours the paroxysms had ceased, no more whooping or vomiting; sleep was obtained.

Though children were admitted to the institution, who had not had the disease, no new cases broke out, and the epidemic was at an end.

The vaporizers were used for a month as a safeguard.

The apparatus is simple, inexpensive, and, I believe, unequalled in the treatment of whooping-cough. It is shown in the cut, and needs no explanation.

A word about "cresolene."

It is a product of coal tar.

Its chemical composition is $\text{CH}_3\text{C}_6\text{H}_4\text{O}$; that of phenol being $\text{HC}_6\text{H}_4\text{O}$. In that it contains an additional hydrocarbon, CH_3 , cresolene is homologous to phenol.

Cresylic acid or cresolene is an oily liquid (boiling-point, 397.4°), corrosive to the skin.

Vaporized by this apparatus, it reminds one of carbolic acid.

The vapor is not injurious to healthy persons. It has a beneficial effect in allaying the irritation and desire to cough in bronchitis.

This agent deserves more extended trial. I earnestly recommend it, and shall hope to see results published.

JOHN MERRITT, M.D.

BROOKLYN, N. Y.



ELECTRICITY A PARALYZING AGENT.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a criticism of a portion of my article under the above heading, in a recent issue of the RECORD, Dr. Wm. B. Neftel, in a subsequent issue, raises an objection to which I desire to reply as briefly and pointedly as possible. It is quite true, as he alleges, that the transmission of a galvanic current along a nerve-trunk renders it more "irritable" to the subsequent influence of an interrupted current, if that current is applied in the catelectrotonos region. But this is only a part of the truth in the matter, as we shall presently see.

This galvanic current is necessarily paralyzing in its action, for the following reasons. Even "very feeble and instantaneous passages of the galvanic current produce electrolytic effects" (Drs. Beard and Rockwell, "Med. and Surg. Elec.," p. 116). These effects are essentially of a decomposing and disorganizing character; and acting on so delicate a structure as nerve-fibre it is impossible to regard the result as other than one of reduced vital activity and dimin-

daughter of Ferdinand E. White, of Boston, by whom he had four children. These survive him.

His funeral, which was attended by members of the New York Academy of Medicine and the Medical Society of the County of New York, was held at St. Ignatius's Church on Tuesday last. The interment took place in Mount Auburn Cemetery, near Boston.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 23d to November 29th, 1879.

KEENEY, C. C., Lieut.-Col. and Surgeon. Relieved from duty at the Presidio of San Francisco, and assigned to duty in San Francisco, Cal. S. O. 142, Div. of the Pacific and Dept. of California, Nov. 15, 1879.

KIMBALL, J. P., Capt. and Asst. Surgeon. To return with the command of Colonel Merritt, 5th Cavalry, to Rawlins, Wyoming Ter. S. O. 107, Dept. of the Platte, Nov. 20, 1879.

HALL, J. D., Capt. and Asst. Surgeon. His sick leave, granted him from headquarters, Dept. of Texas, extended one month on surgeon's certificate of disability, with permission to leave the Dept. of Texas. S. O. 66, A. G. O., Nov. 25, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending November 29, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 23, 1879...	0	15	42	2	84	29	0	0
Nov. 29, 1879...	0	14	43	2	102	51	0	0

HONORS TO DR. FERGUS.—At a recent meeting in Glasgow, a number of citizens presented Dr. A. Fergus with a portrait of himself and a service of plate. The Lord Provost, in making the accompanying address, alluded to the thirty years of long and honorable work through which Dr. Fergus had passed, and also to the recent misfortune by which he had lost a large part of his fortune, through the failure of the Glasgow Bank.

BRITISH ARMY MEDICAL SCHOOL.—This army medical school opened its session November 1st. It had postponed its usual time of meeting one month in hopes that the long-desired army warrant granting proper privileges and emoluments to army medical men would be issued by the government. This was not done, however, and there were, in consequence, no candidates for the army medical department at the school. There were seventeen candidates for the Indian Medical Service, and five for the Royal Navy.

A NEW REMEDY FOR HAY-FEVER. Dr. C. M. Sebastian, of Martin, Texas, reports the case of a patient

who, for twenty-one years, had suffered every spring from hay-fever in a very aggravated form. He had been treated, as a rule, with Dover's powder, extract of hyoscyamus, and the inhalation of the fumes of burning turpentine. Nothing, however, had given him any great relief. At the suggestion of Dr. S., he put on a thick veil when the next spring came and the flowers began to bloom. This gave him rapid and permanent relief. He has now worn the veil for three seasons, and has had no further recurrence of the attacks.—*Medical Herald.*

ASPARAGUS.—Either the shoots or the root of this plant may be used in the form of tincture or syrup. According to Dr. Mary J. Matlack, in the *Medical and Surgical Reporter*, it acts as heart-sedative, and, to a greater extent, as a diuretic. Combined with bromide of potassium, it is very useful in hypertrophy of the heart and in congestive headaches. As a diuretic, it is useful in dropsy and in lithiasis. It seems likely that, as a sedative, it may deserve a place among standard remedies.

DECREASE IN DISPENSARY ATTENDANCE.—The number of patients treated at dispensaries during the past year has been considerably less than in 1878. It is estimated that there have been from 8,000 to 10,000 fewer applicants for relief, including all the dispensaries.

The increased healthiness of the city has been the chief factor in bringing this about. The pay-system, introduced in some institutions, has also reduced the numbers slightly.

CLINICAL STUDY OF CONTAGIOUS PLEURO-PNEUMONIA.—On Nov. 25th, the Professors of the New York College of Veterinary Surgeons, American Veterinary College, and Columbia Veterinary College, held a clinic and post-mortem upon six cases of contagious pleuro-pneumonia. These represented all the cases in the city. About one hundred veterinary students were present; also several physicians.

The animals were subjected to a physical examination and the signs noted. They were then slaughtered and examined. Marbleizations and pleuritic adhesions were found in each case; in one case a large abscess existed.

It was stated that there have been only a few sporadic cases in the city during the past summer, and no danger from an epidemic is to be apprehended.

LUNACY REFORM.—A meeting was held on the 23d ult. to consider the subject of securing reform in the care of the insane. The Rev. Dr. Bellows presided, and a number of prominent physicians and humanitarians were present. A paper was read by Miss Chevalier presenting the subject, and relating the history of the late successful improvement to secure similar reform in Massachusetts. In this Miss Chevalier had taken a prominent part. After some discussion a committee, consisting of Mr. L. S. Metcalf, Dr. Mary Putnam-Jacobi, Miss Collins, Dr. C. L. Dana, and Col. Robert Hoe, were appointed to make arrangements for a public meeting to be held December 18th. At this meeting a number of prominent men will speak, including Mr. G. W. Curtis, Dr. E. C. Seguin, Dr. Chapin, of the Willard Insane Asylum, Rev. Dr. Bellows, Dr. Willard Parker, Jackson S. Schultz and Rev. Dr. Storrs. It will be the object of the meeting to present to the public the deficiencies in the present insane asylum management, to organize an association for the protection of the insane, and to appoint a committee which will endeavor to get some legislative action in behalf of reform.

Original Lectures.

PSORIASIS.

IS IT A LOCAL OR CONSTITUTIONAL DISEASE?

A CLINICAL LECTURE DELIVERED AT THE WOMAN'S
MEDICAL COLLEGE, CHICAGO,

By WM. J. MAYNARD, M.D.,

PROFESSOR OF DERMATOLOGY, WOMAN'S HOSPITAL MEDICAL COL-
LEGE, AND PHYSICIAN TO SKIN DEPARTMENT, CENTRAL
FREE DISPENSARY.

(Reported for THE MEDICAL RECORD.)

I WISH to-day to invite your attention to a cutaneous disease known as psoriasis, and in so doing it pleases me to state that we have in the patient before us a perfect type of this affection, with its different phases of eruption. It is not necessary, perhaps, that I should enter into a very extended description of this disease, for, however vividly this might be portrayed, it would be but trivial in comparison to this ocular demonstration. In this connection, however, there are a few practical points that I would like to have you retain in memory, for they will greatly assist you in the future, when, as practitioners, you will be called upon to diagnose this affection to the exclusion of others somewhat similar. First, then, let me call your attention to the fact that we have here beautifully shown the manner in which the eruption will assume differences as to shape and sizes of the patches, and to these have been given certain names which indicate the form without signifying any change in the character of the anatomical lesions. Thus, that you may not in any way be misled by these long euphonious terms, I will explain that the disease always commences by small reddish spots that are immediately covered over by whitish scales; that these spots, because they are distinct and somewhat resemble a drop of mortar, are called *psoriasis guttata*. Here you will notice that they are somewhat larger, and as they are quite round, distinct, and the size of a coin, are called *psoriasis nummularis*. Here we find that, by spreading out irregularly, or from a coalition of several of these spots, there is a more extended or diffused form of the eruption. This is popularly termed *psoriasis diffusa*, and is often seen upon the elbows and knees when not so apparent on other parts of the body. Thus you will notice that these names are but mere outlines of the same disease, and should not in the least be confusing to you. You will observe, also, that most of these patches are quite covered with whitish or pearly scales, and by scraping them with my knife you see that they are quite easily detached, and there is exposed to your view a bright red or hyperæmic base upon which a number of minute bleeding points have sprung up. Now, this is so characteristic of this disease that you can always rely upon it as an aid in diagnosis when you may be in doubt. You will notice, again, that the eruption on this individual is the best defined or more diffused on the extensor surface of the limbs. This is what is usually witnessed, and I have seen a number of cases where the elbows and knees were the only parts of the body attacked. I wish also to say in this connection, that the eruption in psoriasis is always dry, and has not at any time in its history a stage of exudation, as is so often seen in eczema. There is more or less itching attending this eruption, but it is at times so slight as not to cause

any discomfort to the individual. Psoriasis is a well-marked disease, and, as a rule, easily recognized, because it possesses certain peculiarities that are quite characteristic. Occasionally, however, you will meet with cases that bear a very close resemblance to it, and to these I must call your attention for a short time. Sometimes these round patches in the later stage of the disease will clear up in the centre and leave a perfectly distinct ring that may closely resemble *tinea circinata* or ringworm. In *tinea*, however, the scales are not so thick and bulky as in psoriasis, but rather more branny and of a grayish color. In ringworm there is no tendency toward symmetry in the development of the eruption, but it will attack any portion of the body, and then, too, we most always have a history of contagion. In very doubtful cases, the microscope will lend us very material assistance, for all cases of *tinea* depend upon a vegetable parasite whose mycelium and spores can be generally seen, while no such thing ever exists in psoriasis.

Sometimes upon the link will be found chronic patches of eczema that very closely resemble patches of the eruption under consideration; but when arranged side by side, we will be told that the itching of these patches of eczema is much more intense and constant; that in a majority of cases there has at some time been some exudation; that the scales are much more firm and more tenacious; that the borders of these patches are not so well defined as in psoriasis, but have a tendency to shade away into the surrounding healthy skin. Occasionally we meet with cases of syphilitic psoriasis that so closely resemble the non-specific form that great care and experience is necessary to establish the differential diagnosis—a matter of very great importance, since it renders another course of treatment absolutely imperative. In a majority of such cases you will be able, with a little tact, to receive some evidence of antecedent contagion. If this, however, is not possible to obtain, either through concealment or from the fact that the earlier lesions have been passed by unnoticed, then you must rely upon the appearance of the existing eruptions. Thus, in syphilitic psoriasis these spots are not a bright inflammatory red, as we see here, but rather of a dark red or purplish color, and are only partially covered over with thin, branny scales, which, on account of their tendency to rapidly exfoliate, leave this base quite exposed. In this variety the extensor surfaces, as the elbows and knees, are not necessarily affected, but the eruption will occur upon any portion of the body without regard to symmetry in development.

Patches of psoriasis that exist solely upon the palms of the hands, without being seen upon any other parts of the body, are, according to my experience, invariably syphilitic. Usually, when speaking of the treatment of skin diseases, I have always remarked that the first thing for you to do is to find out what is the matter—to always search for some hidden cause that, in a majority of instances, lies at the foundation of the difficulty. But, in the disease under discussion, I am not able to point out any such cause to you. In a record of 1,500 consecutive cases of skin diseases, I find that psoriasis has occurred eighty-four times, and yet, in a large majority of these, there has really been nothing the matter, as far as I have been able to ascertain. These cases have been very carefully examined, and their organs have been pronounced sound in functional activity. There are many authorities who strongly insist upon certain diatheses, as the strumous, darts and gouty,

and who see in these all that they desire for the establishment of this affection. Others have soared in neurotic enthusiasm over perverted innervation, and have seen in their fancy, excesses at the table, both in eating and drinking, mental emotions, too abundant use of azotized food, coffee, etc., raise the mischief with a patient's cutaneous cells, all through the influence of the trophic nerves. It is a good thing to be a good theorist; there is a great deal of satisfaction in it, for we can tell exactly in our own mind how our medicines are going to act on the most complex organisms, as well as explain the cause of different pathological lesions. But these theories, my friends, do not amount to very much unless they can be substantiated by absolute facts and experience. I am inclined myself to grow enthusiastic on the etiology of disease, and you know how often, when speaking of the management of these cutaneous disorders, I have directed my treatment toward the correction of certain internal disorders that appeared to possess modifying, if not causative influences. In psoriasis, however, I am not able to find these hidden causes that are claimed and insisted upon by other observers. How many times have I examined the urine of these patients in the hope that some changes here might account for this disease, or at least establish the presence of lithemia or the gouty state, which is, undoubtedly, a strong factor in the product of eczema. I have pushed my examinations farther, and have made particular inquiries in reference to good or faulty assimilation, knowing full well how often the organs of secretion and excretion are concerned in other affections of the skin. I have searched for hereditary influences, particularly in reference to scrofula and phthisis, and yet these records show a good family history, provided the statements made can be relied upon.

A few of these have shown an occasional attack of bronchitis and rheumatism, but they have been in so small a minority that I have no reason to suspect that they were any way associated with or concerned in the etiology of the disease. For these reasons, then, I am of the opinion that to a certain extent the skin possesses a sufficient amount of inherent independence to carry on special pathological changes, without the coexistence of other functional disturbances, that there are also many diseases of the skin that are essentially local in their nature and are cured by local treatment. In this class I would place psoriasis, regarding it as a simple hyperæmia of certain portions of the skin, including the upper layers of the corium and accompanied by a manifest proliferation of dried epithelial cells. If these statements are correct, and I have every reason to believe in their truthfulness, you will probably agree with me that there is no particular necessity for internal medication. There really is no particular demand for this, for the disease can in many cases be cured by local treatment alone; and yet I prescribe arsenic very frequently in psoriasis, and have a good deal of confidence in it, for it forms a capital adjunct to my external remedies. Then, too, it pleases the patient more to take something internally, for nearly all afflicted with this disease firmly believe that their blood is out of order, and nothing that you may say or do will convince them to the contrary. It is thought by many of the profession that arsenic is a sovereign remedy for about all the ills that the skin is afflicted with; but this, I can answer you, is a very great error, and one that will lead to bad practice, for there are really but very few cutaneous diseases

where we can expect great benefit from this drug. In advising the use of arsenic, then, I do not give it to these patients in the belief that it will effect such an alteration in the blood that its influence will soon be felt in favorable tissue-changes, or that a clue to its action will be found in the regions of nervous pathology; but rather its action is as a simple tonic to the system, and during its elimination through the skin it plays the part of a cutaneous irritant, and by this means stimulates the process of repair. That it is such a stimulant to the rete, that it even acts as an irritant to these cutaneous cells, is well shown, I think, from the fact that, when used in acute psoriasis and in other forms of skin disease of an acute character, they are invariably made worse by it, while the more sluggish and indolent the disease the more rapid will be the improvement. If then this is the true action of arsenic in psoriasis, you can readily understand how it becomes at once an auxiliary to our local treatment, for this is generally stimulating, and why it is so often prescribed and held in such high esteem by practitioners. When prescribing this potent remedy, then, you should always commence with a small dose, generally three to four minims of Fowler's solution properly diluted with water. You should also give this with perfect regularity three times a day, and always after meals, for it is very liable to irritate the membrane of the stomach if given while fasting. It is rarely necessary to increase this dose, for you will remember that it must be taken perhaps for months, and even this amount is liable to produce unpleasant symptoms, as swelling and itching of the eyelids, pain in the head, gastric disturbance, etc. These unpleasant effects should always be borne in mind, and should be the signal for further reduction of the dose, and, if necessary, its entire suspension. Arsenic is a perfectly safe remedy, and may be given for months without any bad results, provided you are cautious and keep your patient under surveillance. Let us now turn our attention carefully to the local treatment, for here also you must use some caution, both as to a choice of remedies and your manner of using them. First, then, examine into the true condition of the eruption. If you find its development of a very recent date, and running an acute course with inflammatory symptoms, here most assuredly you must use soothing applications, for your patient would not be able to endure the stimulating treatment that I am about to recommend. In these cases also there will be a constant exfoliation of scales, which must be removed first by plain or alkaline baths. A very good one for this purpose may be made by dissolving a pound each of borax and bicarbonate of soda in thirty gallons of water. After this bath the patient should be anointed with cosmoline or vaseline, and this treatment continued until the eruption fades away or becomes sufficiently chronic to allow a more stimulating application.

We have in the patient before us a very good example of this chronic condition, and, as she has had the disease for some time, her skin will, I think, bear this stimulating treatment very well. These scales should be removed in the manner I have just described, but unfortunately she belongs to a class that do not indulge very much in the luxury of a bathtub, and so we must content ourselves with repeated washings of soft-soap and water. This will remove the scales sufficiently, and then she should be rubbed with an ointment containing fifteen grains of chrysophanic acid to the ounce of lard, or cosmoline. I have been using this drug for the last two years, and like

its action very much; at least, it seems to remove the disease much quicker than other remedies applied for the same purpose. It, however, should be used with great care and should be applied only to the patches of the eruption, for occasionally we meet with patients who cannot tolerate the drug, on account of its extreme irritating effect upon the skin, producing either a diffused redness around the whitened patches, or an inflammation that extends over a larger surface and is accompanied by some febrile symptoms. If you are careful, however, to use it only in the more chronic cases, these disturbances will not often occur. Another objection to its use is the peculiar staining of the skin left after the application, which to some is exceedingly disagreeable, and on this account it has been my custom to use the acid on the parts covered by the clothes, and substituting for the face and hands the *sapo viridis*, or what is generally known as German green soap. This may be used alone, or, if found too irritating, with one or two parts of alcohol. Pyrogallie acid has of late been mentioned as a substitute for chrysophanic acid, when this cannot be tolerated. It is claimed that its action is quite similar, but much slower and milder. As it does not dye the hair nor produce any inflammation of the skin, it can be used much more freely upon all parts of the body. This acid is soluble in water and should be used in a ten per cent. solution.

I have not as yet had sufficient experience in the employment of the drug to speak in positive terms of its asserted efficacy. The tarry preparations, *pix. liquida* or *oleum cadini*, may also be used with good results, either in ointment with lard or cosmoline; or, if these are objectionable as lotions, with alcohol or cologne spirits. With these remedies at your command you will be successful, in a majority of instances, in removing the disease. Occasionally, however, you will find it exceedingly obstinate, and even when apparently cured will relapse without the slightest provocation, especially in the winter season. In these particular cases I would advise you to continue the arsenic treatment for several months after the subsidence of the eruption, in the expectation that it will act favorably toward preventing its reappearance. From these personal investigations, then, I am led to the belief that psoriasis in a majority of instances is purely a local disease; that it is often removed by local means alone; that arsenic is curative only as it acts in conjunction with the local treatment. I am a warm advocate of the influence of functional disturbances in their relation to skin diseases, and with my statistics taken entirely from that particular strata of society called upper crust, my views may be somewhat changed on this subject, for I am always ready at any time to be governed by a preponderance of truth. I am confident, however, that this will not occur, for I have already seen a sufficient number of cases in private practice to thoroughly substantiate these views, gleaned mostly from dispensary experience. While claiming the local origin of psoriasis, it is but just to say to you that my opinions are not in accordance with those of many dermatologists, and that a majority perhaps will favor its constitutional origin. Still, these deductions are the results of my own experience; and verified as they are by other good observers, I give them to you in the hope that your own future investigations will corroborate them.

KENTUCKY SCHOOL OF MEDICINE.—Dr. M. Kampf has been appointed Professor of Surgery in this school.

AMNESIC APHASIA AND AGRAPHIA.

RIGHT-SIDED HEMIPLEGIA DEPENDENT UPON THE FORMATION OF A CLOT IN BROCA'S CENTRE OF SPEECH, WITH SUBSEQUENT SOFTENING.

A CLINICAL LECTURE DELIVERED AT THE PENNSYLVANIA HOSPITAL.

By J. M. DA COSTA, M.D.,

PROFESSOR OF MEDICINE AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL COLLEGE, PHILADELPHIA.

(Reported for THE MEDICAL RECORD.)

THIS man presents a very peculiar form of cerebral disease as a result of apoplexy.

H. L.—, *set.* 40, Irish by birth, and a tavern-keeper by occupation. He presumably shares in the habits of men of this persuasion, and has, in fact, told us that he has been formerly of very intemperate habits—in other words, an habitual drunkard.

During the past five years he has been subject to peculiar attacks, in which he has become suddenly unconscious, and has remained so for several minutes at a time. He stated, or rather his friends told us when they brought him here, that he had never had convulsions, or exhibited convulsive movements, and had never frothed at his mouth. Thirteen days prior to his admission, which was on the 27th of October last (1879), while apparently in good health, he fell to the floor unconscious and remained so for some ten minutes. When he regained consciousness he was entirely unable to speak. His wife says that the right arm and leg were paralyzed, but that this condition subsequently improved. When the man was admitted to the wards we noticed considerable muscular rigidity in the right arm and leg. He moved his right leg as if it were an artificial member, bringing his heel down stiffly, with the toes extended. The arm could also be moved voluntarily, but it remained in any position in which we chose to fix it for several minutes, just like an automaton. The grip of the right hand was impaired—was, in fact, quite feeble.

As regards the patient's sensation, we found that it was markedly impaired all over the body, the right side a little more so, perhaps, than the left. You may say that this statement must be received with some doubt; that we have to depend entirely, as regards the question of sensibility, upon the patient's answers, and that the man's condition is not such as to warrant us in placing any great reliance upon facts for whose demonstration his concurrence is necessary. In this you are largely right; still, however, I think you may receive, as a well-proven fact, the statement that the man's sensation is duller on the right than on the left side of his body.

During all this time he has not spoken. You notice that the expression of his face is quite vacant and confused. All the while that I have been telling you the particulars of his case, he has been accompanying my remarks with confirmatory nods, which may not be regarded, perhaps, altogether as signs of an intelligent understanding of what we have been discussing. Still he takes cognizance of the most part of what is going on around him.

To go still farther into the case, there is a very doubtful history of specific disease. Indeed, in summing up all the evidence, I am inclined to think that there has not been any specific disease. Still, I will leave the question open.

The urine has been carefully examined and found

to be acid, pale, cloudy, and with a specific gravity of 1010. At times there was a very small amount of albumen found in the test-glass, but as the most recent analysis has failed to reveal its presence, we must conclude that albuminuria was but a temporary phenomenon.

The electro-muscular contractility of the right side of the body is impaired. It moves, but not so freely as the left side of the body. The faradic current, however, elicits a ready response.

I am going to ask him some questions:

"Have you had your breakfast?"

"Yes."

"Have you had your dinner?"

"Yes."

"Have you had your supper?"

"Yes."

You see, gentlemen, he answers "yes" to everything. He possesses, in truth, but one word in his vocabulary, and that word is "yes. Once, or twice, I have noticed a faint attempt on his part to answer "no," but the "yes" vastly predominates.

I would call such a case in the abstract, or, to use a better term, generically, a case of *aphasia*. This term we must at present accept as meaning a deprivation of the patient's power of speech, while he still retains the power of understanding what we say, in a certain way, and of moving his lips

"Can you whistle?"

Yes; he can make the effort and put his lips in the proper position. This proves that there is no crippling of the muscles of the mouth or face, and no impairment of the muscles of articulation.

Taking up this clue, then, let us look farther. Let us see if the man understands what I say. In other words, let us try and discover whether the case may not be one of idiocy accompanying the aphasia, whether the patient's brain is not as slow, or slower than his tongue. How are we to proceed in this examination? I hold up my watch before his eyes.

"Is this a fork?"

"Yes."

"Is it a watch?"

He cannot say, and yet when I ask him again:

"Is it a watch?" he nods his head with a gleam of intelligence.

"Is it a penknife?"

"No."

He shakes his head. His intelligence is very evidently impaired, but it is not gone. There is nothing like idiocy. This statement which you may, perhaps, think has not been very decidedly proven by my questions and his wavering answers this morning, has been confirmed by repeated observations made in the wards, which have shown that it is not so much a confusion of his ideas as a lack of keenness and accuracy in the man's grasp of them. He is unable to express himself because he has lost his speech, and not because he is an idiot in any sense of the word.

This point has been further tested in the wards by the use of the battery. It had been thought that it might be an instance of idiocy, consequent upon dementia from alcoholism, where there was a loss of muscular power associated with the dementia—in other words, that it was a case of alcoholic dementia with paralysis. For the purpose of testing these points we applied a strong current to the man's skin by means of the electric brush. Such an application, as you all, no doubt, know, gives rise to great agony, such pain that nobody can hold his or her speech under the use of a strong current; it is the best method in

our hands for detecting malingerers. Yet, although the expression of the patient's face showed that he was suffering great pain, not a single word escaped from his lips except a whispered "yes." We thus established our diagnosis of the existence of actual aphasia.

Let us now, before concluding, go somewhat into the cause of this man's condition, and then let us discuss the indications for the treatment of the case.

I have already called your attention to the doubtful history of syphilis in the case, but have, at the same time, declined to consider that history as authentic. There is no history of malaria and no history of heart-disease; no murmur, no dilatation. The kidneys are in good order. Occasionally there is a little albumen in the urine, but it is a very inconstant phenomenon.

His eyes have been examined with the ophthalmoscope, and the evidence is entirely negative; there is no distinct alteration. This examination has been rendered very much easier by the fact that the man's pupils are constantly dilated.

But let us pursue the subject still farther, and let us see whether he has any means left him of communication with the outer world. Has he lost the power of speech only, or is he also unable to write?

"Take this piece of chalk and write your name on the blackboard."

"Is that your name?"

"Well, now write your age."

Notice that there is no crippling of the hand here, gentlemen; the patient tries his best to write, and this is an additional proof of intelligence on his part, but these two short, uncertain, wavering lines are all that he can give us to express:

"Henry L., et. 40."

Our patient has plainly lost the power of written language—is, in other words, *agraphic*.

But there is yet another point in the case to be tested. I will try and see, although I allow that it is not easy to determine the point in one so deprived of the power of speech—I will try and see whether the man can repeat words after me, and also endeavor to determine whether he still preserves the memory of words, or whether memory, as well as power of expression, has been effaced.

"Say 'clinic'; say 'room.'"

You see that he cannot repeat either of these words after me, although he tries very hard to do so.

The other matter is to see whether he still has an appreciation of words, or whether he has lost his sense of their meaning. This point I have already tested when I showed him my watch and asked him whether it was a watch or a penknife, but I will try it again.

"Is this a piece of soap?"

"Is it a glass of water?"

He nods his head, yes, to both questions. He is not sure about its being a piece of soap. He is evidently fatigued, and so, without examining him any further, you may take my statement, based upon numerous examinations in the wards, that, as far as I can judge, his memory of words is to a large extent lost; so that generally, when I have mentioned a word to him, he has not understood it, but occasionally, after thinking awhile, the word has returned to him. Perhaps I had better modify my statement and say that his memory for words is comparatively, but not altogether lost.

I have, by these examinations, established a number of facts. I have made out a case of aphasia and agraphia, with right-sided loss of power. It has also been shown you, I think, that the man's mind is slightly impaired—though the idea is present, the

word is wanting—so that the case is one of amnesic aphasia—loss of words, of the power of writing, to some extent only, of intelligence.

What is the underlying cause of all this? What has been the lesion? Where is the lesion? Any one of you who has paid much attention to the advance of physiological science of late, will know that the centre of speech has been located in the left frontal convolutions, and especially in one of these convolutions—the so-called speech-centre of Broca, named after M. Paul Broca, to whom we owe most of our knowledge of this speech-centre. It has been proved by numberless experiments that a destructive lesion of this portion of the brain deprives one of the power of speech.

This brings us to the consideration of another question: What is the nature of the lesion in the present case? We cannot be quite as certain regarding this point, since any lesion destroying these parts will give rise to the same general symptoms. Still I do not think it beyond the province of diagnosis to settle upon the true nature of the lesion.

You will have noticed that the disease came on suddenly. The acute stage was, it is true, preceded by temporary insensibility upon several occasions, but the attack which brought the man into the hospital was, nevertheless, a very sudden one, and when we come to inquire into the cause of such sudden attacks, we find that they are always the result of an apoplexy. In the present case, then, we would say that there had either been (1) an apoplexy in Broca's speech-centre, or (2) that an embolus had been arrested there, or (3) that there had been a sudden clotting in the vessels of that region—in other words, what might be called a thrombus. This last supposition we can dismiss at once, because the condition is a very rare one, and because, when it does happen, there are always marked convulsive movements present, and the hemiplegia is less marked than we find it to be here.

Which of the other alternatives do I fix upon? I think that we have here an apoplectic clot, caused by the breakage of degenerate, atheromatous vessels. I think that this clot is small, and is limited to the centre of speech. I give this opinion, because (1) of the sudden, marked attack of unconsciousness; (2) by reason of the hemiplegia; and (3) on account of the absence of any symptoms of disease of the heart, which, were they present, would favor the theory of an embolic cause for the attack, just as their absence is a strong argument against it.

Is this all I have to tell you regarding the case? No. The clot has been followed by slow tissue-changes—in other words, by local softening; for, if the formation of the clot had not been followed by such softening, we should not have had the impairment of intelligence noted in this man, nor the persistent loss of the power of articulate speech.

To sum up, then, we have a case of aphasia, in the broad sense of the term, as a result of the formation of a clot in Broca's region of speech—the posterior part of the third frontal convolution on the left side—and the clot has been followed by subsequent softening of the surrounding parts.

Right-sided Hemiplegia.—Let us turn our attention to this symptom of the case. Is right-sided hemiplegia common in cases of lesions involving the left anterior frontal convolution of the brain? It is very common—is, in fact, the rule, and a rule which has but very few exceptions. In this respect, then, the present case has been a typical one.

There has been something very peculiar about the

loss of power in the present case. At first this loss of power was complete, then the paralysis diminished; but, even at this comparatively late period in the attack, the grasp of the man's right hand is very feeble. This paralysis was soon followed by rigidity and spastic contractions of the muscles of the right arm and leg when put into motion. This tendency to rigidity is not so marked in the leg as in the arm. The man can move the fingers of his right hand; but, when I hold the arm out at length and then let go my hold suddenly, instead of falling, the arm stays rigid for some time in the same position, like an automaton's or a cataleptic's arm. I want to call your attention in particular to this point of difference between the hemiplegia in this case and that which usually accompanies this condition. Can we draw any conclusion from this difference? I think we can. When there is any rigidity of the muscles following the hemiplegia consequent upon a clot, it should be regarded as an indication of the existence of a progressive irritative lesion of the brain, showing that the nerve-centres are still in a constant state of irritation.

I hope that I have succeeded in laying before you the many diagnostic points of the case, so that they have possessed their real significance in your eyes.

This brings us to a consideration of the questions of prognosis and treatment.

The patient having been taken out of the room, I may tell you that the prognosis in these cases is bad, if our diagnosis has been correct in regarding the case as one dependent upon the formation of a clot with subsequent softening. Indeed, we cannot hope for any permanent good results from our treatment. I have seen cases recover their speech, but I fear this man never will do so entirely.

His treatment has consisted mainly in the administration of nervous tonics. He has been taking cod-liver oil and iron. At one period in the attack Basham's mixture was given. Something may be accomplished by improving his nutrition; so let us give him the hypophosphites—two drachms of the compound syrup of the hypophosphites and half an ounce of cod-liver oil thrice daily. Let us also use faradization to the affected muscles, and particularly to the muscles of the tongue. This faradization of the tongue is sometimes attempted with great advantage. You will say that such a procedure would be irrational, but it is not nearly so irrational as you would suppose. We may in this manner stimulate, by some obscure connection, the nervous centres themselves.

Numerous attempts have been made to stimulate the central system by applications of the continuous current over the seat of the disease in the brain, but the results thus far have never been as good as those obtained by stimulating locally the muscles of phonation.

I think that this case of cortical apoplexy has been pregnant with clinical features of interest and instruction to us all.

GURJUN BALSAM, OR WOOD-OIL.—This balsam is obtained from a tree in India, and is largely used for gonorrhœa by the natives. It is recommended very strongly by M. Vidal as a remedy for obstinate vaginitis. He soaks a tampon of cotton in equal parts of the balsam and warm water, and inserts it in the vagina. It is to be renewed every day.—*Gazette Hebdomad.*]

Original Communications.

CEREBRAL "IRRITATION" AS A SOURCE OF MOTOR NERVE-POWER.

BY THOMAS W. POOLE, M.D.,

LINDSAY, CANADA.

"LOOKED at from a purely professional point of view, the simple question for us is: Does irritation of the cortical gray matter on the upper and outer part of the cerebral hemispheres tend to produce convulsions? And this question may now undoubtedly be answered in the affirmative." (Dr. C. H. Bastian: "Paralysis from Brain Disease," p. 76.)

Before this answer is given and accepted, it is of the utmost importance to apprehend the true nature of the "irritation" referred to. The cortical gray matter of the hemispheres is so little susceptible to irritation of any kind that the severest mechanical injury may be inflicted on it, such as cutting, tearing, burning, etc., and that, too, in the perfectly conscious and normal condition of the animal, without evoking any reaction of a muscular or spasmodic kind. Electricity was, till recently, believed to be equally inoperative, since currents, which, if applied to motor nerves, tetanize the muscles, produce no effects when applied to the cortical substance; and it requires currents more powerful than these to produce the desired localized convulsions of corresponding muscles. Under these circumstances, by what right are the cortical motor centres said to suffer "irritation" from any of the causes mentioned above? It is evident that their susceptibility in this respect is altogether exceptional, and that what may be a source of irritation to ordinary vascular tissues is not such to the cortex cerebri. Dr. Ferrier, indeed, denies that cauterization of the cortex cerebri is productive of irritation, and if this be true of so severe an operation, surely we ought also to admit the absence of irritation in other morbid changes—the result of exposure to the air, of lesions gradually forming, of hemorrhagic clots, or of other processes of a character apparently much less intense.

Dr. Ferrier, however, and physiologists generally, are accustomed to see in the class of cases just mentioned, the presence of "irritation," and it is necessary they should assume it to be present, because the production of spasms and convulsions is theoretically regarded as due to the evoking of increased motor nerve-power from the centres in question, the hypothetical "irritation" furnishing a cause for the production and discharge of the motor stimulus to the muscles, requisite under that theory.

But is it true that "irritation" of nerve-centres necessarily implies *increased functional activity* on their part? We know that in inflammation—the very highest form of irritation—notwithstanding the appearance of increased excitement (which is deceptive), the vital power of the part affected is really depressed (Dr. Carpenter). Again, from the very nature of irritation, it may be held to be closely allied with pain, and "the essence of pain" is "perturbation of nerve-function, a disturbance quite different from mere exaltation of the normal development of nerve-force." "Pain is not a true hyperæsthesia; on the contrary, it involves a lowering of true function" (Dr. Anstie: "Neuralgia," p. 12.) The presumption is that what is here held to be true of

pain is true, also, of "irritation," and that, in one case as in the other, functional power is lowered.

The occurrence of muscular spasm and convulsion as a concomitant of depression or paralysis of the nervous centres is quite in accordance with the results of the physiological experiments of Sir Astley Cooper, Drs. Kussmaul and Tenner, Dr. Brown-Séquard, and others, as recounted by Dr. C. B. Radcliffe, F.R.S. ("Lectures on Epilepsy," etc.), in which it was shown that spasm and convulsion take place in proportion to the *absence* of the ordinary control exercised by the nervous centres over the muscles. It will be seen that, in this view of the case, the "irritation" referred to above in the opening quotation from Dr. Bastian, with its supposed increased functional activity on the part of the nervous centres, is not necessary to the onset of convulsions, which occur to the best advantage when the implied conditions of "irritation" and excess of nerve-power are entirely wanting. This being the case, it is desirable to inquire more particularly whether there is sufficient proof that any such alleged "irritation" is present in these states at all, or whether what has been called "irritation" is not really a condition of depression or arrest of motor nerve-power, a condition which, in the experiments referred to, was shown to be most conducive to spasm and convulsion of muscle.

Now, Dr. Ferrier is a leading authority on this subject, and we propose to examine the chief experiment adduced by him in proof of the "irritation" theory. He writes: "The first experiment I have to record is instructive, as showing the respective effects of irritation and destruction of the convolutions bounding the fissure of Rolando. The right hemisphere of a monkey had been exposed and subjected to experimentation with electrical irritation. The part exposed included the ascending parietal, ascending frontal, and posterior extremities of the frontal convolutions. The animal was allowed to recover, for the purpose of watching the effects of exposure of the brain. Next day the animal was found perfectly well. Towards the close of the day following, on which there were signs of inflammatory irritation and suppuration, it began to suffer from choreic spasms of the left angle of the mouth and left arm, which recurred repeatedly, and rapidly assumed an epileptiform character, affecting the whole of the left side of the body. Next day, left hemiplegia had become established, the angle of the mouth drawn to the right, the left cheek pouch flaccid and distended with food, which had accumulated outside the dental arch, there being almost total paralysis of the left arm and partial paralysis of the left leg. On the day following, the paralysis of motion was complete over the whole of the left side, and continued so till death, nine days subsequently. Tactile sensation, as well as sight, hearing, smell, and taste were retained. On post-mortem examination it was found that the exposed convolutions were completely softened, but, beyond this, the rest of the hemispheres and the basal ganglia were free from organic injury."

Dr. Ferrier adds: "In this, we have a clear case, first, of vital irritation producing precisely the same effects as the electric current, and then destruction by inflammatory softening, resulting in complete paralysis of voluntary motion on the opposite side of the body, without affection of sensation." ("Functions of the Brain," pp. 200-202.)

Here, it will be noted, the spasms of the muscles began to occur contemporaneously with "signs of inflammatory irritation and suppuration." Are these

conditions favorable for increased functional activity? We have already quoted Dr. Carpenter's opinion in the negative to this inquiry. And if inflammation be attended not by exalted, but by depressed vitality, how much more is this true of suppuration, which appears to have shown itself very early in the process? Have we not here rather a failure or arrest of motor nerve-force, producing the very condition which Drs. Kussmaul and Tenner, and the other experimenters mentioned above, found most conducive to the occurrence of muscular spasm and convulsion; the inherent contractile power of the muscles asserting itself when no longer adequately controlled by the restraint of corresponding nervous centres?

As to the subsequent presence of "paralysis" rather than spasm and rigidity, we have to observe:

1. The term "paralysis" is one which should be restricted to the nerve, and is not at all applicable to the muscle, whose power of contraction is not destroyed, but is merely restrained, and survives even the general death of the organism. Thus, Dr. Dickson remarks: "The opinion that a true muscular paralysis exists, is, I believe, an error." ("Med. in Relation to the Mind," p. 265.) If instead of regarding spasm and "paralysis" of muscle as opposite conditions, we interpret them as varying degrees, or stages, of motor nerve paralysis, we shall find in what is called muscular "paralysis," a loss of co-ordinate power and of voluntary control, the nerve still dominating the muscle; whereas, in clonic spasm we have an alternation of the balance of control between the nerve and muscle, and in tonic spasm, or rigidity, a cessation of motor nerve restraint, setting the muscle free to assert its inherent contractile power, and the latter passing into a degree of rigidity proportionate to its freedom. Softening of the brain frequently produces rigidity as well as "paralysis" of muscles, and the occurrence of one or the other may be held to depend on the greater or lesser degree of the paralysis affecting the motor centres.

2. It may be fairly questioned whether softening is a legitimate result of *suppuration*, and it would be interesting to know if, in Dr. Ferrier's case, the microscope was employed as the only certain means of verifying the presence of that state. (Dr. J. H. Bennett.) But there is nothing even in the presence of the softening here reported, incompatible with the view, expressed above, of a modified motor nerve restraint over the muscle in the state of "paralysis." For numerous instances are on record in which softening did not prevent the operation of motor impulse; and, as Dr. Carpenter remarks, "we are still far from having an accurate knowledge of the degree of structural change in the nervous centres incompatible with the continued performance of their function." ("Phys.," p. 669.)

3. Considering that animals sometimes not only survive, but in great part recover from much more severe operations than the one practised in this experiment, there is no certainty that death resulted from the exposure of the surface of the brain; and it is quite probable that other local or general causes, among which imperfect nutrition is likely to have been prominent, induced the fatal result. So far from the brain affection proceeding from bad to worse, the fact of suppuration at the close of the second day, and the absence of pus, sloughing, or waste of tissue, on the post-mortem, on or after the thirteenth day, seems rather to denote an effort of repair and a partial recuperation of function on the part of the cortical motor centres which enabled them to reclaim, in part, the loss of restraint over the muscles, as seen in

the arrest of the spasms and the return to a quiescent state of the muscles, as the result of that restraint, though still powerless to the will.

These considerations serve to account for the phenomena of this case, as depending on differences in degree of an uniform condition of depression or paralysis of function of the cortical motor centres, to the exclusion of "irritation" as a factor in the case at all. And if it be true, as Dr. Ferrier asserts, that the application of a red-hot iron to these same cortical centres is not a source of "irritation," but produces rather paralysis of function, ought not the same doctrine to be applicable to a lesser form of injury, the result of mere exposure, which is surely a much less potent cause of irritation than the actual cautery?

In Dr. Ferrier's second case, "the left hemisphere of a monkey was exposed, and the cortical substance destroyed by the cautery," involving several recognized motor centres of localized muscles. "In this case the paralysis was confined to the same movements as result from electrical stimulation of the centre specified." (Ib., pp. 202-3.)

We have elsewhere collated authentic facts, from leading authorities, which appear to prove that electricity is neither a stimulant nor an irritant, but a paralyzer of nerve-tissue. We believe the facts justify the opinion that by this quality of its action it arrests motor nerve-power, and by so doing brings about the condition (referred to above) most favorable to the occurrence of muscular contraction. In this view of the case what does this experiment teach?

That electrical paralyzation of certain cortical motor centres produces definite localized contractions in muscles associated with these centres; the muscle contracting in proportion to its freedom from nervous restraint, as determined by the intensity of the current and the consequent motor paralysis.

Cauterization of the same motor centres produces a lesser degree of motor paralysis, and with this, less freedom of the muscles, which, while co-ordination is destroyed, are still sufficiently restrained from passing into spasm, and hence manifest that negative position known as "paralysis."

Here, again, no place is found for "irritation." Such a view of the case is, of course, directly antagonistic to the generally received doctrine that in a state of spasm and convulsion the motor centres are excited, and are "discharging" nerve-force with unusual vigor—an excess of function for which the lowered vital power of the afflicted centres appears very unfavorable, and a doctrine of the causation of spasm and convulsion, which the evidence of the able experimenters before mentioned shows to be untenable.

It is worthy of note, in this connection, that the hypothesis of the late Dr. Todd, which ascribed the muscular contractions of "late rigidity" to an "irritative" condition of the cicatrizing lesion in the brain, has been definitely discountenanced by such authors as Bouchard, Bastian, Hammond, and others, who find the cause of this rigidity in secondary *degeneration* of the spinal cord; and surely a condition of this kind is not favorable for the generation of an excess of nerve-power in the spinal centres, whereby the muscles are to be stimulated to pass into a state of rigidity.

The contractions of "early rigidity," have not, so far as we can ascertain, been attributed to "irritation" by any one; and if the theory of the day is to be maintained, that such contractions are dependent upon undue activity of the nervous centres, we are

left without any explanation of the rigidity here occurring.

It has, however, been customary for authors to attribute, sometimes an irritating, and at others a paralyzing, effect to congestions, extravasations, or other morbid states of the brain and cord. (Dr. J. H. Bennett's "Clin. Lec.," p. 406; Dr. Brown-Séquard, etc.) Dr. William A. Hammond thus expresses this idea: "The symptoms which follow spinal hemorrhage are the result of excitation and compression, the hyperæsthesia and the spasms being due to the former, and the anæsthesia and motor paralysis to the latter." ("Dis. Nerv. Syst.," p. 442.) Now, in cases where the paralysis (from compression) is confined to one limb, or to one set of muscles, and the rigidity (from excitation) to another, this view of the case might seem plausible; but, as usually happens, the paralysis and the contraction of the limbs or muscles go together. We might easily multiply quotations from the leading authors to prove this. Such phrases as, "paralysis ushered in by convulsions," "hemiplegia with spasms," "rigidity of paralyzed limbs," "coma, paralysis, and tonic spasms," "rigidity supervening in the paralyzed side," "unilateral convulsions" with, or following, "unilateral paralysis," "general paralysis with rigidity and contraction," etc., appear on almost every page of chapters devoted to this subject. Can we believe that in such cases the motor nerves, which are paralyzed, are at the same time conveying an excess of energy wherewith to stimulate the muscles to pass into the state of contemporaneous contraction here witnessed?

Dr. W. A. Hammond finds, "very conclusively," in progressive muscular atrophy, that the seat of disease is not primarily in the muscle, but "in that part of the nervous centre from which the nerves come which supply the muscle." "The destructive metamorphosis of the nerve-centre proceeds at a greater rate than its nutrition," and, as a consequence, the nerve suffers exhaustion and atrophy of its cells. (Ib., p. 674.) And yet, in every one of his cases of this disease, Dr. H. finds "fibrillary contractions" of the paretic muscles. What does this prove? That the exhausted and atrophied cells of the nerve-centres were generating and sending an excess of nerve-force to the muscles to induce these contractions? No; but that the deprivation of nerve-force, so natural under the circumstances, had liberated the muscular fibres from their customary nervous restraint, and the inherent contractile power of the fibrillæ of the muscle asserted itself accordingly, in proportion to their freedom.

Instead of dwelling longer on organic lesions, and the evident failure of nerve-power which they occasion—a subject which might be greatly extended—let us glance, in conclusion, at the nerve-centres in those purely functional disturbances which are also productive of spasm and convulsion.

Dr. C. H. Bastian refers to these states as consisting in "a mere molecular damage of a recoverable kind which must have taken place in the nerve-elements, a damage or derangement which, for a time, hinders their proper life-changes, and so puts a temporary stop to their functional manifestations." We ask the reader to note this language carefully. He continues: "In these cases a large amount of nervous energy is liberated in the cerebral hemispheres, and a rapid down-rush occurs upon the motor ganglia at the base of the brain, as we see by the cries and sudden muscular movements which accompany such states. This sudden down-rush of energy or 'discharge' upon the motor ganglia, induced by emotional causes, while

it often produces chorea, seems occasionally to induce mere loss of speech, or the same temporary paralysis as that which is produced by the nervous discharges of an attack of unilateral epilepsy, which then goes by the name of emotional hemiplegia" ("Paralysis from Brain Disease," p. 27.)

Here, it is asserted, we have "a damage or derangement" of function in the nerve-elements, which "hinders their life-changes" and "puts a temporary stop to their functional manifestations," a condition which surely may well be held to result in deprivation rather than in excess of nerve-power. And yet it is under these avowed conditions of arrest of function that we are told excessive discharges of nervous energy take place from these same centres! And what is the result? "Chorea" (which other authorities assert results from nervous weakness), "loss of speech," and "temporary paralysis." Extraordinary effects, truly, from a "down-rush" of "a large amount of nervous energy liberated in the cerebral hemispheres;" but just the effects, naturally, to be anticipated from a deprivation rather than from an excess of nerve-force. This "paralysis" is said to be closely associated with "unilateral epilepsy," another name for a species of hemiplegia. Mark the connection here again between paralysis and spasm or convulsion.

In this remarkable passage, which we have fully quoted, we find a process which begins in damage, derangement, and arrest of function; then presently exhibits a marked excess of functional activity, and speedily results in loss of function in the parts on which it is ultimately expended! Is there here the natural and proper sequence between cause and effect? And if such be really the scientific medical teaching of our time, what opinion will future generations entertain of us and of it?

Is it not fair to conclude that this confusion and contradiction are chargeable to the theory of the day, which requires a stimulus from the nerves as a condition of muscular contraction, and that this stimulus, in the case of spasm and convulsion, is sought to be derived from a hypothetical "irritation" in organic lesions and functional disturbances of the motor centres, in both of which cases motor nerve-power is really depressed, and, as a consequence of that depression, the muscles are proportionately set free to exert their inherent power of contraction?

ULCERATION AND CONTRACTION OF THE RECTUM FOLLOWING SEVERE DYSENTERY—LUMBAR COLOTOMY.

PATIENT PRESENTED TO THE NEW YORK ACADEMY OF MEDICINE, NOVEMBER 20, 1879.

By ALFRED C. POST, M.D., LL.D.

RICHARD CLARK, laborer; born in Ireland; æt 30; admitted into Presbyterian Hospital, December 23, 1877.

Previous history: In the fall of 1876, while at work making excavations in wet ground, he had an attack of dysentery. In the course of two or three months pus appeared in the stools. Under medical treatment, the stools lost their dysenteric character, but a more or less abundant purulent discharge continued until the time of his admission to the hospital with rectal tenesmus and severe pains about the anus after each passage. The patient gives a good family history. There have been no syphilitic antecedents.

On admission, the general health of the patient

seemed to be good. A fissure of the anus was found posteriorly, and ulceration of the rectal mucous membrane an inch or more from the sphincter. He has about six passages a day.

December 23d.—Suppositories of compound gall-oil and iodoform were ordered to be introduced into the rectum daily.

December 30th.—As the faecal matter is hard, and its passage causes severe pain, sulphur sublim. was ordered in 3 i. doses morning and evening.

January 9, 1878.—The patient was etherized, and the sphincter ani dilated sufficiently to rupture some of its fibres. On examining the rectum with a speculum, no ulceration was brought into view, but there was circumscribed congestion of the mucous membrane, with some ecchymosis just within the verge. Sulphur discontinued to-day.

January 26th.—Patient's condition is somewhat improved. The fluid extract of ergot was ordered in doses of ten minims three times a day.

February 2d.—Injections of carbolic acid, one to thirty, were directed to be given morning and evening.

February 12th.—Patient was etherized, placed in Sims's position, and examined with a speculum, with the aid of a strong light. An annular constriction was found two inches from the anus, extending half way around the gut on its left side. This is probably the cicatrix of a chronic ulcer, of which a part remains unhealed on the posterior wall of the rectum. This spot is very sensitive. Ordered suppositories of iodoform, gr. v., morning and evening. Discontinued carbolic acid injections.

Feb. 26th.—Patient has had but one passage to-day; it was of soft consistence, and without pain. But there was pus with it.

March 24th.—When the stools are hard they give rise to severe pain. The stools are more or less purulent, but not bloody. Bougies have been introduced from time to time. Their introduction at first was quite painful, but it is now much less so.

April 7th.—Ordered injections of arg. nit., gr. ij. in $\frac{3}{4}$ iss. of water.

May 1st.—The strength of the injection was increased to gr. v. of arg. nit., in $\frac{3}{4}$ iss. of water.

May 21st.—The actual cautery was applied over the left iliac region.

May 30th.—Discontinued injections.

July 1st.—Injections of arg. nit., gr. v., were resumed, and were continued until July 24th, when the patient left the hospital in a somewhat improved condition.

On the 27th of January, 1879, he was again admitted to the hospital, and his condition was much less favorable than when he left in July. When he came under my care in February, I found extensive ulceration in the rectum, involving the whole thickness of the mucous membrane and nearly the whole circumference of the intestine, and two or three inches in length. The patient suffered great pain when he had an evacuation, and for some time after. The ulcerated surface was touched with a sol. arg. nit., 3 ss. to $\frac{3}{4}$ i., every second day, and care was taken to avoid constipation. But no marked relief followed, and he expressed a strong desire to undergo any operation which would afford a chance of relieving his sufferings. Accordingly, on the 27th of March I performed colotomy in the usual manner, in the left lumbar region. The operation was well borne, and the wound healed kindly. Since that time his evacuations have occurred without pain, through the artificial anus, and the general health of the patient has greatly improved. He wears a compress of oakum

over the artificial anus, kept in place by a bandage around the body.

Nov. 20, 1879.—For several months past bougies have been introduced through the contracted portion of the rectum, beginning with instruments twenty-nine millimetres in circumference, and finally using a bougie fifty-seven millimetres. The instruments have been introduced every second day, and daily injections have been administered of liq. soda chlorin. diluted with eight parts of water. Minute portions of faecal matter have passed through the rectum on one or two occasions; but there have been regular evacuations through the artificial anus, occasioning but little inconvenience to the patient. The artificial anus is on a level with the adjacent integument, there being no prolapsus of the bowel, and no irritation of the skin in the neighborhood. The patient is very well satisfied with his present condition as compared with his state before the operation.

The operation of colotomy for the formation of an artificial anus has usually been resorted to in intestinal obstruction occasioned by malignant disease of the rectum. Its performance in non-malignant ulceration and contraction of the rectum, although not unprecedented, has been very rare. But in cases of great severity and obstinacy, like that which is the subject of the present paper, the operation appears to me to be an eminently proper one, relieving the patient from great suffering, and affording a chance of many years of life and of comfort.

CONGENITAL ABSENCE OF RECTUM.

By ALFRED LUDLOW CARROLL, M.D.,

NEW BRIGHTON, N. Y.

On November 23, 1878, I was called to see a male infant, born four days before, under the ministrations of a midwife, who had finally discovered that there must be "something wrong" about her little charge, as no evacuation of the bowels had taken place, despite her ineffectual efforts to exhibit an enema, and in defiance of sundry doses of oil. The child was much emaciated, with pinched features, cold extremities, tympanitic abdomen, faecal vomiting; in brief, seemingly moribund.

On examination, the anus and external sphincter were normally formed, but on attempting to introduce the finger a cul-de-sac was found, not more than half an inch in depth. The absence of any bulging or sense of fluctuation excluded the idea of a mere membranous septum or brief interruption of the rectum, and the abdominal distention was too great for palpation to afford a distinct clew to the situation of the upper intestinal pouch.

Perforating the anal cul-de-sac with a trocar (5 mm. diameter), I cautiously felt my way, keeping at first in the mesial line, and well back toward the concavity of the sacrum, and deflecting the instrument somewhat to the left after reaching the level of the sacral promontory. In the earlier part of the procedure the sensation was as of penetrating an unyielding, dense tissue; at the height of about two and a half inches this feeling of resistance diminished; but it was not until the entire length of the trocar ($3\frac{3}{4}$ inches) had passed that the cavity of the bowel was reached, a large amount of flatus and some faecal matter following the withdrawal of the trocar. The depth of the wound forbade any attempt to bring the intestinal pouch down to the anus, and my only hope was to maintain and dilate the sinus which I had just

made. First passing a broom-straw as a guide, I removed the canula and inserted in its place a flexible catheter with the tip cut off.

On the next day I found that the child had passed a comfortable night, nursing with appetite. No vomiting. Early in the morning the catheter was expelled, and a copious evacuation found its way through the wound. No elevation of temperature nor apparent abdominal tenderness. I nicked the edges of the perforation in the anal pouch and passed a No. 2 (French) bougie. For two weeks afterward I contented myself with the daily introduction of bougies, up to 32 (French), the patient meanwhile doing as well as could be expected, with two or three evacuations per diem; a large one always following the use of the bougie. Subsequently I made use of Thomas's dilator—an instrument resembling a slender glove-stretcher—with a view to enlarging gradually the artificial passage, and by this means was able to procure distention to about an inch and a quarter. The bowels were evacuated regularly and freely, and with normal action of the external sphincter; but the general condition of the patient remained discouraging, notwithstanding that it nursed with avidity and retained the milk without trouble. There were, however, no marked indications of failure until the sudden and severe onset of cold weather in the beginning of January, under which, in an insufficiently warmed cottage, the child rapidly sank, dying of asthenia on the morning of January 3d, six weeks after the operation. I was unfortunately unable to procure a post-mortem examination.

The fatal termination of this case cannot be regarded as a disappointment, considering the condition of the child when I first saw it, and its unfavorable surroundings; yet the operation itself may be called a *quasi* success, all of its dangers being passed, and the immediate cause of death unquestionably being the exceptional cold of the night of January 2d acting upon a feeble and ill-protected frame. I have been induced to report the matter fully, partly on account of the unusual depth of the exploratory puncture, partly because it illustrates some of the difficulties attending the choice of an operative procedure in similar deformities.

It is to be remembered that in the development of the fetus the lower portion of the rectum is a pouch formed from the outer layer of the blastodermic membrane, while the middle portion of the primitive intestine, a closed sac, from which are to be formed the small and large bowel, down to the upper part of the rectum, is contained in the umbilical cord until the fourth month, its lower extremity subsequently constituting the cæcum, which lies at first in the mesial line, and from whence the colonic arch is projected, not reaching its full development, however, until the sixth month. A separate segment of the primitive intestine—the pelvic portion—is charged with the production of the middle third of the rectum. Hence we can readily understand the various degrees of malformation resulting from arrest at different stages of evolution. From the simple cutaneous closure of the anal orifice up to a series of detached pouches, or to abnormal openings at the umbilicus or into the uro-genital tract, pathological anatomy shows us every grade of deformity. The most easily remediable of these conditions is where the abdominal portion of the intestine and the anal portion of the rectum have reached each other but failed to completely coalesce, leaving a membranous septum where the two pouches came together. This condition is not difficult to recognize, from the sense

of fluctuation imparted by the accumulation of mæconium; and the mere division of the septum, with subsequent dilatation, will suffice to establish the natural order of things. But where the separation between the two pouches is of greater extent, the problem becomes vastly more intricate. We may have a fibrous cord—the remnant of the undeveloped pelvic portion of the primitive intestine—leading to a normally situated sigmoid flexure, or a mass of cellular tissue reaching up in the pelvis to an indeterminate extent, the blind termination of the upper bowel being anywhere between a centrally placed cæcum and the normal side of the descending colon. This uncertainty affords the strongest argument against Callisen's—or, as it is commonly called, Amussat's—operation of left lumbar colotomy, and leaves the balance in favor of Littre's proposal to make an opening in the left iliac region, where, even if the sigmoid flexure be absent, some coil of intestine can be reached. But in all such cases the question arises, whether death be not preferable to the chance of a life burdened with the disgusting condition of an artificial anus. Moreover, neither of these operations has yielded encouraging results when performed for congenital deformity; most of the patients having died within a few days. The only really satisfactory instances that I know of are those of a girl operated on by Duret in 1793, by Littre's method, whom Gerraud (quoted by Velpeau) saw alive and well twenty-one years afterward; and a boy mentioned by Erichsen, on whom lumbar colotomy had been performed eight years before for congenital absence of rectum and anus. A few other "successes" are vaguely reported, but the lapse of time between the operation and the report is either not stated at all, or is so brief that the permanence of the success is left in doubt. At all events, with the exception of Gerraud, I know of no one who has met with an adult bearing an artificial anus established for the relief of a defective rectum at birth.

Most modern surgeons agree in advocating the perineal operation, though this also has failed to prolong life for more than a few weeks at most in the vast majority of instances; the few examples of more lasting benefit being where the intestine lay but a short distance from the sphincter, save in a case operated on by M. Friso (recorded by Velpeau), where the wound extended to the depth of three inches and a half. In this case, however, the duration of life is not given.

Theoretically, the most favorable results should be obtained where the bowel lies near enough to permit its extremity to be brought down to the external orifice, thus establishing a continuous mucous canal—as was first, I believe, done by Amussat in 1835. But even here, few patients have survived more than three or four months at longest. When the interruption of continuity is greater, as in the case I have related, all that can be accomplished, whether by trocar or bistoury, is to create a fistula which must have a constant tendency to contract, and which, though perhaps sufficient for the semi-fluid discharges of infancy, will almost inevitably give rise to trouble when the feces become more consistent. It was for this reason that I attempted, though with small hope of ultimate success, to dilate the artificial canal to the utmost by the "glove-stretching" process. If the external anus were absent the better plan would be to dissect inward with the bistoury, using the finger as a guide; but where a normal anus exists, I should prefer to explore with the trocar, forasmuch as a smaller wound is made if we fail to reach the inter-

tine, while, if the latter be found low enough down, the knife may be employed to complete the operation. The chief drawback to the trocar is the difficulty of making sure that the lowest available point of the bowel is entered. In my case, in lack of an autopsy, I cannot tell what part of the intestine I perforated, and can only surmise, from the extent to which a bougie could be passed, that the descending colon terminated in a large cloaca.

The deaths in nearly all the cases which I find recorded have been from asthenia, and I believe that the alleged source of danger from absorption of septic matter in the perineal operation is imaginary rather than real. There is nothing necessarily septic in the feces while in the intestine, and we do not fear their contact with a wounded surface in other operations about the rectum. At any rate, in the instance under consideration, there was no indication of blood-poisoning, notwithstanding the somewhat rough usage to which the track of the wound was subjected.

To sum up, it seems to me that the following propositions may be stated:

1. In congenital malformations of the rectum, exploration from the perineum should always be first essayed, and by preference with the trocar. If the occlusion consist of a simple membranous septum, it need only be incised crucially with a probe-pointed bistoury. If the intestinal pouch be sufficiently near to the surface, the track of the trocar should be enlarged by the knife, and an endeavor made to bring the mucous lining down to the external wound. If, however, the interruption of continuity be too great for this proceeding, we should be content with dilatation of the fistulous passage, although with small chance of prolonging life beyond a few weeks.

2. In case of failure to find the bowel with the trocar, a forlorn hope may be sought in colotomy. And here, in view of the probability that the arrest of development has occurred at an early stage, I should choose the right lumbar region as the site of operation.

3. Where the deficiency of the rectum involves a considerable part of its course, the prognosis is almost hopeless, whatever method of operation be adopted.

CLINICAL CASES.—I. LOCAL USE OF ERGOT. II. GUAIAACUM IN HÆ- MATURIA.

By JOHN N. UPSHUR, M.D.,

RICHMOND, VA.

CASE I.—I was called, on the 4th of March, 1878, to see Mrs. E. S—, who gave the following history of herself:

"I am 32 years old; married eleven years; have never had any children. Have been very irregular in my menses, and suffer more or less constant pain in my left side, pain in my back, and sense of weight in the lower part of my stomach; when the time for my period comes, I spit some blood and have an uncomfortable sense of fullness about my head; of a constipated habit, though bowels are moved daily, insufficiently; at each stool lose more or less blood; it is sometimes so free as to blanch the cheek; have suffered with this hemorrhage from the rectum for twelve years, and it is always increased by any undue exertion."

At the time of my first visit, her complexion was

sallow, appetite capricious, and a general feeling of indisposition to make any exertion. Had been under the care of two other physicians of this city. Vaginal examination revealed a womb somewhat prolapsed, enlarged, and os abraded, extending up the cervix nearly to os internum; some leucorrhœa. Rectal examination showed an ulcer just on the margin of the internal sphincter, with edges abrupt, as if cut out with a punch, about four lines in diameter, and springing from the bottom of it a pyramid of granulations which bled profusely on the slightest touch. She was put upon a general tonic treatment of iron and the hypophosphites, undue exertion prohibited, and the bowels kept in a soluble condition by laxatives and enemas. Her womb trouble, under the local application of Churchill's tincture of iodine, glycerine balls, and the hot douche, was soon relieved, and the application of a Hodge pessary, which was worn for about six months, entirely restored this organ to its normal condition.

All sorts of applications—both caustic and of a soothing and astringent character—were made to the rectum, but with only temporary benefit; the hemorrhage not being restrained for more than a week or ten days at a time, and the ulcer obstinately refusing to heal. There was an attempt at the perfect restoration of the menses, but this was not accomplished so long as the hemorrhage from the rectum continued. After a month or two of this treatment (she having been very averse to the knife), assisted by my friend Dr. Hugh M. Taylor, of this city, I freely divided the sphincter muscle, and kept her in bed for ten days. From this treatment she derived much benefit, and had a longer exemption from the rectal hemorrhage than ever before; the menses became more regular, and her general health improved, and in October I discharged her, flattering myself that she was permanently cured. But the hemorrhage continued to recur at intervals of three to five weeks, and in July, 1879, she again came under my care for treatment for the old trouble. Examination of the rectum showed the old ulcer healed, but the lower end of the incision made a year before was still open, and manifested no inclination to repair. Just at the margin of the internal sphincter muscle, about the site of the old ulcer, there was a villous tumor about the size of a nutmeg, with sessile base, and very red in appearance. A few applications of Battey's solution No. 2 (iodine, 3 ij. and liq. carbolic acid, 3 vi.) soon healed the old cut, but the bleeding recurred, and no local application that I could make was of any benefit to it. Having had my attention called several years ago to the injection of ergot into the rectum in the treatment of piles, by reading a report of the successful treatment of some cases of this malady with this agent, by Dr. Semple, of Hampton, Va., and more recently by a paper from the pen of my friend Dr. Wm. C. Dabney, of Charlottesville, Va., on the local use of ergot, I determined to give it a trial, ordered a suppository composed of gr. xx. ext. ergot, with some anodyne and cocoa-butter, to be introduced twice daily, and kept the bowels open by co. sennas powder taken at night. One week of this treatment had reduced the tumor to half its original size, and it presented a pale, withered appearance; no hemorrhage. At the end of the second week still more improvement, and the patient expressed herself as greatly comforted. Directing her to continue the suppositories and let me know if she stopped improving, I discontinued my attendance. Nov. 25, 1879, visited Mrs. S— to-day; says she has had no bleeding for four months; thinks herself entirely well. Menses regular and normal, and

declares that *she feels better, can walk and exert herself more than ever before.* She still uses the suppositories as a matter of precaution.

CASE II.—Was called, in January, 1878, to see Miss E. H., set 29, by occupation a seamstress. She was up, and engaged as usual with her needle. Had been previously healthy, except that about a year before she had had an attack of hæmaturia lasting for several months, resisting all treatment, though she was attended at the time by a man of skill and long experience, and finally stopping of its own accord.

The writer was called in to prescribe for the same trouble, which had recurred without, so far as could be ascertained, any cause. Her family was of an intensely rheumatic and gouty diathesis, though not one of them a free liver. No cause being apparent, the treatment was difficult; and she took for three months various treatment—tonic, ferruginous, diuretic and astringent—with varying results, and at the end of that time was no better than in the beginning. Analysis of the urine at various times, chemically and by the microscope, kindly made for me by Prof. L. S. Joynes, of this city, failed to reveal *anything* save evidence of the presence of blood. Every treatment that the writer could think of—all the suggestions made by some of the best men of the profession in Richmond—were tried, with *no success* whatever.

At last, being in despair, and "necessity" in this case as many others in life proving to be "the mother of invention," I determined to try the tinct. of guaiacum, for the sole reason of its reputation in the treatment of congestive dysmenorrhœa, tonsillitis, &c., and because I believed the hemorrhage might be kept up by a passive congestion of the kidneys. A drachm three times a day in half a tumbler of milk was ordered, and at the end of the second day the hæmaturia had entirely ceased, and did not return again for a year, when, on her own motion, she took the tinct. of guaiacum again, in the outset with the same prompt relief, and has since had no further trouble.

This case was reported to the Richmond Academy of Medicine; and the result obtained in the above case, subsequently confirmed by Dr. J. G. Cobell, of this city, in a case of his, the hæmaturia being checked in *two days*, all previous treatment having failed, and in *two* similar cases under the management of Dr. H. H. Levy, also of this city. I do not attempt to explain the *modus operandi* of this remedy, but make only a simple unvarnished statement of facts; and if I can add a remedy in the treatment of this malady, which, by further trial, will prove as beneficial as in these few cases, I shall be more than repaid. Every new fact in the experience of any medical man who loves his profession, and would thereby benefit humanity, ought to be given publicity to that end, and it is such a motive which has prompted the report of the above cases.

615 E. FRANKLIN STREET.

SIMPLE METHOD FOR THE TREATMENT OF PURULENT OTITIS.—In place of a syringe and a tampon of cotton, one can use a round piece of wicking. This may be introduced by the patient himself with a gentle rotary movement. After it has reached the bottom of the ear, it quickly absorbs the pus and is then to be drawn out. The movement is then repeated until the ear is clean, when a fresh piece of wick is left instead of the conventional cotton. The wick may be medicated with an alkaline solution or with salt.—*Gazette Hebdomad.*

Progress of Medical Science.

DIPHTHERIA AND MILK.—There has long been a suspicion that milk was occasionally a carrier of the diphtheritic poison. It has even seemed probable that the diphtheritic poison originated with some morbid condition in the cow itself. It was shown in 1869 by Dr. Thorne that the milk from cows affected by foot and mouth disease was injurious to human subjects. About a year ago a committee of the London Pathological Society was appointed to investigate the relation between milk and diphtheria. Their work is not yet finished, but meanwhile several outbreaks of diphtheria have occurred in England, which show the importance of a more thorough knowledge of the matter. The history of these outbreaks has been given by Mr. E. L. Jacob.

On a particular day ten persons in the village of Weybridge were attacked with diphtheria. During the subsequent nine days fifty more had the disease. The epidemic then suddenly stopped. The persons affected were mostly of the better class, and were found to be living in all parts of the village. The only thing in common was, that all the families affected had milk from the same dairy. Twenty per cent. of the families supplied by this dairy had diphtheria. Eleven of these families had milk from two or three cows exclusively. Ten out of this eleven had diphtheria. The remaining 139 families supplied by this dairy had more or less of the milk from the same two or three particular cows. Twenty-one of these 139 families were attacked. The evidence pointed with great certainty toward the milk as the source of the infection, and, with less probability, toward the two or three selected cows. Investigation failed to discover any disease in the cows, or any especially bad hygienic condition about them. It was possible, however, that the cows had had some disease, or that the milk had been diluted with polluted water.

At the Princess Mary's Village Homes forty-eight persons were attacked with diphtheria. The water-supply of the farm which supplied the milk to the homes was found to be impure; one of the cows had the garget; and the epidemic began rapidly to decline eight days after the stoppage of the milk-supply.

In these cases the evidence is not so strong that milk was the cause. Still there was nothing to which the epidemic could be attributed.

At Leatherhead, in the course of six weeks, fifty-five persons were attacked with diphtheria. As respects water-supply, drainage, school-congregation, and personal infection, there was very little in common. Almost all of the families affected, however, had milk from the same dairy. Nothing wrong could be discovered at this dairy, except that the water-supply was not very good.

At Sutton, fifteen persons were attacked with diphtheria within two days. These persons lived in different parts of the town, and under good sanitary conditions, but they were all supplied with milk from the same dairy. Nothing wrong could be discovered at this place.

The facts thus given, though inconclusive, have very great importance as showing the necessity of a thorough investigation of the true relation of milk-supply to diphtheria.—*Brit. Med. Journ.*, Nov. 8, 1879.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 13, 1879.

ASYLUM MANAGEMENT.

NOTWITHSTANDING the report of the Senate Investigating Committee, referred to in our previous number, the medical profession should not be discouraged in continuing its efforts at reform in insane asylum management. The fact that the petitioners from the New York Neurological Society did not make out a case, simply proves that they came before the Senate committee unprepared for the investigation. But reforms in asylum management are still as necessary as before, and must continue to be urged even at the disadvantage of being against what now appears to be present public opinion.

In view of this necessity, it is encouraging to know that a number of influential citizens, representing all the professions, have taken the matter in hand, with a determination of suggesting the necessary reformatory measures and enforcing their consideration upon our legislators. Public opinion is to be created in favor of the movement in another manner than that of making the asylum superintendents the apparent martyrs to personal animosities. On previous occasions we have pointed out the deficiencies in asylum management, and it may not be amiss to direct attention to them again by way of suggesting to the citizens' committee the propositions the verification of which would promise the best practical results.

Most insane asylums are too large for efficient management; and yet they are in nearly every case greatly overcrowded. A great proportion of our State insane are in poor-houses or wretched county asylums, where they get practically no treatment at all. Only two of our county asylums are efficiently managed. The number of attendants in asylums is small, and, in some instances, their training insufficient. There is, in consequence, too much mechanical restraint; there is not enough systematic exercise, amusement, or employment; the present system of medical care is inefficient; the acute and chronic insane are treated together, and it is now pretty gen-

erally agreed that this should not be done. The provisions for early treatment of the insane are entirely inadequate, although its great importance is everywhere acknowledged. There is, in many cases, need of better diet, and of proper appliances of every kind. Few institutions are capable of doing any good pathological work.

We can, in addition, make the general complaint that clinical and didactic instruction in insanity is at its lowest possible ebb, and it is for this reason, in part, that so little attention or interest can be aroused among medical men on the subject of lunacy reform.

The measures which both the profession and the public should strive for ultimately should be: The establishment of lunacy commissioners, who should devote their time exclusively to the work of overseeing the asylums; the erection in future of asylums that shall be economically built, and shall not accommodate over 250 or 300 patients; the reorganization of the medical and executive arrangements for the management of the institution. This should include a fuller and a better paid, and, if possible, a better qualified medical staff. There should also be a visiting staff, when practicable—one that would be something more than a mere ornamental appendage. There should be trained nurses in numbers sufficient to make mechanical restraint a rare necessity. There should be arrangements for treating the acute and chronic insane in separate institutions, and for getting the acutely insane under treatment as soon as possible. The medical profession should join the public in demanding that measures for securing these reforms be instituted as soon as possible. It should ask, also, more exclusively on scientific grounds, that the clinical and pathological material be utilized as much as possible for the benefit of students and physicians. It may appear that these best methods, suggested above, are very Utopian. There is not, however, anything intrinsically difficult in carrying them out.

The trouble lies in the political influences that surround present institutions, in the fact that old methods have been firmly engrafted upon us by time, and through the existence of large and expensive buildings in which the old routines are established. The question of money, which a reform always at first requires, is also a prominent one.

There is, however, the fact that these evils do exist, and are crying ones. There is the fact that improvement is not at all impossible. These things will give encouragement that something will eventually be accomplished. When fully known and appreciated, no civilized and humane community will long tolerate them.

GRATUITOUS SERVICES TO CLERGYMEN.

OUR esteemed contemporary, the *Philadelphia Medical*, has in a recent number a very sensible editorial

article on the gratuitous treatment of clergymen. It is the practice, generally, whenever attendance is given to a minister's family, never to demand pay therefor. A great many practitioners have been at a loss to understand why such a distinction should be made in favor of this particular class of professional gentlemen. If they are poor, then of course the physician is only too ready to attend them for nothing. It is true, the clergyman is a man of influence in the community, and the young practitioner is generally glad to have it known that he has his confidence. But practice obtained in that way is generally not worth a great deal, especially if the unfortunate practitioner has the representatives of all the denominations of his village on his list. Even then it is quite likely that his distinguished patients may recommend some quack to his parishioners, especially if that individual has made a fortune, and is a prominent pew-holder in the church. We are sorry to say it, but the medical profession really owe very little to the clergymen. The good influence which might be exerted in behalf of legitimate medicine is thrown into another channel, and charlatanry is endorsed not only in religious papers, by widely circulated certificates of remarkable cures, but even in the pulpit itself. Of course, there are notable exceptions to this rule, but we are speaking of clergymen as a class. When we look at this question in a purely matter of fact light, there is no real reason why a clergyman should be free from pecuniary obligations to the profession. If the physician wishes to aid the cause of Christianity by caring for its servants, he can do it in the ordinary way. The assumption of more than this obligation by holding himself out as a general dispenser of charity to the clergy, not only gives him more than his share of good works, but imposes upon his professional brethren an extra burden, which to refuse might be considered heathenish.

We are not talking of poor and really deserving clergymen; but of those who have as large, or, as is very often the case, larger incomes than the physician who attends them. In such cases we are constrained to ask, where is the return for services rendered? Pecuniarily speaking, does the doctor get an equivalent in the free services of the minister? This question is answered in part by the following remarks of the editor of the *Times*:

"If the physician attends church—and let us hope he does—he assists in paying his minister's salary. If he marries—and let us again hope he does—he pays his minister a fee which five times exceeds what he would ask for granting the clergyman a similar amount of time. In case of death in his family, he perhaps would hardly feel comfortable unless he sent his minister a fee for his services at the funeral. Now the real question arises, why should he not receive a reward for his services when the minister dies?"

THE WAY TO SELECT A PROFESSOR.

A new departure is to be made in Chicago in the selection of a professor for one of the medical colleges of that city. It is announced, as will be seen in another column, that a public *concours* is to be held for the position at a certain time next month, the candidate lecturing on a subject previously selected before the faculty and the medical class. Applications are received from any part of the country. We speak of this plan for the purpose of giving it an unqualified endorsement, and hope that the example will be followed by all the medical schools in the East. If the college does not succeed in obtaining a first-class teacher, it will not be because it has not made an honest effort to do so.

We hope that there will be a great number of applications, so that a good opportunity will be offered for a proper selection. We shall await the result with considerable concern, as its success will serve to establish a very praiseworthy precedent.

PERCENTAGE FROM DRUGGISTS.

We are informed by the *Chicago Pharmacist* that many of the physicians in Chicago demand as high as forty per cent. on the gross price of their prescriptions to patients, others as low as twenty-five per cent., while still others are content with their cigars and liquors free. If this be true, many of the physicians in Chicago are in a very bad way. We are inclined to think that the statements must have some foundation in fact—if not in Chicago, at least in different parts of Michigan, for the *Michigan Medical News* comes forward to excuse the evil. While the editor does not endorse the practice, he rather boldly says "that there are circumstances in this country and in these times which remove it from the realm of moral turpitude." These circumstances appear to be, that the honest and conscientious doctor cannot collect all his bills, and must therefore have a "collusion with the druggist." "What with dead-beat patients and prescribing druggists, the physician is but too often driven to 'execute the villany he is taught.'" The inevitable conclusion appears to be, that if the balance is to be struck against such patients as will not pay, and against the druggists who will prescribe, the burden is narrowed down to the conscientious patient who not only pays his doctor, but also the druggist and the percentage. Verily, we believe that it is time for the golden geese in Illinois and Michigan either to migrate or stop laying.

SANITATION AT MEMPHIS.—A citizens' committee, at a meeting in Memphis, November 30th, adopted the recommendations of the National Sanitary Commission in regard to sewerage and the general sanitary care of the city. Efforts are to be made to obtain money of the Legislature for carrying out the proposed measures.

Reviews and Notices of Books.

THE HISTORY OF MEDICINE IN NEW JERSEY AND OF ITS MEDICAL MEN, FROM THE SETTLEMENT OF THE PROVINCE TO A.D. 1800. By STEPHEN WICKES, A.M., M.D., Acting and Honorary Member of the Medical Society of New Jersey, etc. 8vo, pp. 449. Newark, N. J.: Martin R. Dennis & Co. 1879.

In the year 1875 the Medical Society of New Jersey resolved to publish its old transactions, and by virtue of his official relations to the Society, Dr. Wickes became the editor of the volume. What appeared to be an accident in the beginning turns out to be a very fortunate thing for the Society and the profession. Dr. Wickes has given us, as the results of his careful research and patient labor, one of the most interesting volumes which it has been our fortune to read. Commencing with the beginnings of population in New Jersey, he tells us what was the early medical practice in the province, and gives an intelligible and succinct account of the different diseases which were prevalent at that period. The history of inoculation as practised in New Jersey claims attention. The account of the formation of the first medical societies, and of the conditions of medical literature and education, are extremely instructive to the medical historian, as showing how keenly alive were the forefathers in medicine to the necessity of maintaining the reputation for learning and the dignity of their calling. The story of legislation is full of suggestive references to past history, which is now and again repeating itself in different medical organizations over the country. The practice of obstetrics was, to all accounts, in an exceedingly crude state, and we have a short account of the first efforts at teaching this branch of our art. The condition and management of the military hospitals recall some incidents of the American revolution, as do also the biographies of a host of medical authors, which fill the latter half of the work. A paper entitled "Observations on that terrible Disease vulgarly called the Throat Distemper, by J. Dickinson, A.M.," and written in 1740, is an interesting document, and gives a good idea of the crude notions of pathology and therapeutics which prevailed at that period. The fee bills which are published in full, as well as the accounts of some of the old fathers, help to make instructive history in regard to methods of practice and the charges therefor. But it is impossible to detail the excellences of this instructive history; it is, perhaps, sufficient to say that the accomplished editor deserves the thanks of the entire profession for the admirable manner in which he has performed his task.

WALSH'S PHYSICIAN'S HANDY LEDGER. Ralph Walsh, M.D., Washington, D. C.

THIS is an exceedingly handy, simple, and convenient-sized ledger. It is intended as a companion to the call-book and tablet by the same author, but can be used with any visiting-list desirable. Each page is devoted to one patient for the year, there being spaces for each day of the month. The amount per month can be footed up at the end of each month-line, or the whole amount of the year's attendance can be given at the foot of the page. Spaces are also made in appropriate places for a credit account, monthly or yearly, with date of payment. By this arrangement the physician can tell at a glance on what particular days he made his visit, how many

per day, and when the patient paid him on account, and the amount. Facing each patient's page is another, on which is noted obstetrical, surgical, and miscellaneous attendance, for which special charges are made. The general plan of keeping accounts is otherwise the same. It is substantially bound, has good paper, clear type, and is altogether a serviceable volume.

ATLAS OF HUMAN ANATOMY. Containing 180 large plates, arranged according to Drs. Oesterreicher and Erdl, from their original designs from nature, with full and explanatory texts by J. A. JEANÇON, M.D. Cincinnati, Ohio: A. E. Wilde & Co.

THE object of this work, as stated in the preface, is to "bring before the medical public a pictorial representation of all parts of the human body in a size and form which ordinary works on anatomy fail to furnish." We have received the prospectus, which contains a life-size engraving of head, neck, and shoulder, showing the distribution of the carotid, subclavian, and axillary arteries. The figure is artistically drawn, is printed on fine paper, and is accompanied with explanatory text. As far as can be judged from this specimen, the work will be a very valuable one.

THE SKIN AND ITS TROUBLES. New York: D. Appleton & Co. 1879.

THIS, the eleventh of the English Health Primers, is presumably written by Tilbury Fox. The skin is shown to be a much-abused organ, and many points instructive to the laity are given. The necessity of attention to the constitutional condition in skin diseases is insisted on throughout the book.

FIRST BOOK OF QUALITATIVE CHEMISTRY. By ALBERT B. PRESCOTT, Professor of Applied Chemistry in the University of Michigan, etc. 8vo, pp. 160. New York: D. Van Nostrand. 1879.

PROF. PRESCOTT has prepared this little manual for classes which take a short course in qualitative chemical work. Although for such purpose it is much fuller than is absolutely necessary, the general design and arrangement are very good. The book will, no doubt, prove very useful to the many who can never expect to gain more than superficial acquaintance with experimental chemistry.

PHYSICIANS' POCKET DAY-BOOK. By C. HENRI LEONARD, M.A., M.D. Detroit: C. Henri Leonard. 1878.

DR. LEONARD has furnished the profession a very good day-book. It contains also a small ledger, and is probably quite complete enough to serve all the purposes of our young men "with a small but growing practice."

PREVENTION AND CURE OF CHRONIC CONSUMPTION. By DAVID WARK, M.D. 8vo, pp. 103. New York: The Authors' Publishing Co. 1880.

STARTING with Hutchinson's tables, which show that the vital capacity of the lungs steadily decreases with the progress of consumption, the author assumes that proper physical training will prevent this decrease and stop or cure the consumption. This theory is padded with a mass of physiological facts and fancies, and ornamented with a recital of several private cases that have been cured by the new treatment. The author has evidently crammed up a good deal on physiology, and though he has not yet got the science quite clear in his head, his statements are tolerably accurate. They will probably impress the

public, for whom the book is designed. The history of "cases cured" will also make a very effective appearance.

To the profession the book presents nothing new—except its author.

STUDENTS' AID SERIES: AID TO ANATOMY. By GEORGE BROWN, M.R.C.S., etc.

AIDS TO FORENSIC MEDICINE AND TOXICOLOGY. By W. DOUGLAS HEMMING, M.R.C.S.

AIDS TO THERAPEUTICS AND MATERIA MEDICA. Part I. The Non-Metallic and Metallic Elements; Alcoholic and Etherial Preparations, etc. By C. E. ARMAND SEMPLE, M.R.C.P., London. New York: G. P. Putnam's Sons. 1879.

The Students' Aids Series is an American reprint of a number of small works by English authors. Most of the books have had considerable popularity in England, and they are likely to meet the same reception here. They are written by reliable men, and are printed in excellent style. Not much can be gotten within sixty or seventy pages, however, and their value, except to assist in "cramming," is slight.

Of the three before us, that on Forensic Medicine covers ground not in the text-books ordinarily purchased by students, and is of more value on that account.

We confess we are unable to find anything specific to praise in the other two books.

HYGIENE OF THE VOICE: ITS PHYSIOLOGY AND ANATOMY. By GHISLAIN DURANT, M.D., Ph.D. A New and Revised Edition. 8vo, pp. 189. New York: Cassell, Petter, Galpin & Co., 1879.

DR. DURANT'S treatise on the Hygiene of the Voice covers very nearly the same ground as that of Mr. Holmes's book recently reviewed by us. It is, however, less pretentious in its composition; it contains less historical matter, and the subject is not so elaborately analyzed and classified. The physiological discussions, we may add, are also less thorough, and the anatomical plates and descriptions not so good. The present work, however, is full of useful suggestions, and altogether is a more practical and useful volume. A very clear and satisfactory account of the vocal organs is given, this occupying about half the book. The rest of the space is devoted to hygiene. Under this head the doctor makes some special attacks upon customs not unfrequently indulged in by speakers and singers. Cold drinks, tight lacing, the wearing of red flannel, whispering, loud talking, and laughing—above all, the use of troches, are interdicted. As a substitute for the latter to lubricate the throat, the author uses a mixture of *pimpinella saxifraga*, *pulmonaria*, *erysimum*, and bromide of ammonium, held in gum acacia.

Some curious facts in regard to the eating and drinking habits of noted artists are given. Thus, in the intervals of rest during exercise of the voice, Wachtel swallows the yolk of an egg beaten up with sugar; Mme. Sontag eats sardines; Mme. Patti drinks seltzer water; Mme. Nilsson, beer; and Lablache eats two salted cucumbers. The tendencies seem to be, on the whole, towards beer and tobacco.

In an appendix to the book, a number of formulæ for colds, sore throat, etc., are given.

The publishers have done their work extremely well, and made the book a model of neatness.

THE THROAT AND VOICE. By J. SOLIS COHEN, M.D. Philadelphia: Lindsay & Blakiston. 1879.

THIS is one of the series of American Health Primers. It is more of a medical book than is that of Holmes

or Durant, the first half being devoted to short descriptions of diseases of the throat and larynx. As these descriptions for the most part end in recommending—very properly—that a physician be called in, their exact utility is not very apparent. The rest of the book is devoted to the physiology and hygiene of the voice. The author's name is sufficient guaranty that the work is well done.

There are a number of good illustrations.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Nov. 20, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8.15 P.M., and the minutes of the last stated meeting were read by the Assistant Secretary, DR. EDWIN F. WARD.

The Librarian, DR. JOHNSON, reported that, since the last stated meeting, the library had received seven bound, four unbound volumes, twenty-eight pamphlets, twenty-seven numbers of medical journals, and an atlas containing ten micro-photographs, a present from Dr. John F. Gray, of the State Lunatic Asylum.

On motion, the thanks of the Academy were extended to Dr. Gray for his valuable contribution.

THE PRESIDENT then introduced Dr. Stoddard, of Michigan, and Drs. White and Alden, of the U.S.A., and invited them to take seats upon the platform.

The Statistical Secretary, DR. F. V. WHITE, announced the death of Dr. Oliver White, and gave a brief sketch of his life.

The President appointed Dr. Gouverneur M. Smith to prepare a memoir of the late Dr. Oliver White.

LUMBO-COLOMOTOMY FOR NON-MALIGNANT DISEASE.

DR. A. C. POST presented a patient upon whom he had performed lumbo-colotomy (vid. page 560).

DR. LEWIS A. SAYRE thought the case presented by Dr. Post marked a new feature in American surgery; for he knew of no case in which the operation of lumbo-colotomy had been performed in a case of non-malignant disease. He was not able to see any difference between malignant disease and an incurable disease, so far as the propriety of an operation for relief was concerned; if any, it should be in favor of the latter; for by its years of otherwise unavoidable suffering might be avoided. He thought the operation under the circumstances was perfectly justifiable; it was in accordance with a principle, and he believed it was original with Dr. Post.

DR. POST remarked that Dr. Van Buren had expressed himself entirely in favor of the operation under the circumstances mentioned.

DR. HOWE referred to a case which he reported to the New York Pathological Society last winter. The patient had a history of syphilis, her vagina was almost entirely closed as well as the rectum; she was emaciated and bed-ridden. The operation of lumbo-colotomy was performed after consultation: it resulted in complete relief, and the woman was yet alive and enjoying good health. Subsequent to the operation her rectum and vagina became completely closed.

EXCISION OF THE HEAD OF THE FEMUR IN UNUNITED
INTRA-CAPSULAR FRACTURE.

DR. J. W. HOWE read a paper on the above subject, basing it upon a case which came under his observation in Charity Hospital, and had the following history: A female patient, set. 62 years, was admitted to Charity Hospital March, 1876. No hereditary taint of any kind, except the love of whiskey. Three months previous to her admission she received an intra-capsular fracture of the neck of the femur by falling at the doorstep, and was treated eleven weeks by means of Buck's extension apparatus at the Chambers Street Hospital, after which she was sent to Charity Hospital. When admitted to Charity the limb was not painful when at rest. A plaster-of-Paris splint was adjusted and worn two months without improvement. It was removed, and Buck's extension with the long splint substituted and worn for six weeks, but without benefit. The limb was suspended by means of a broad bandage passing under the foot and up around the neck, and the patient placed on a pair of crutches, but that failed because of the pain produced, and the patient again took to her bed. Crepitus was as well marked as at the beginning of the treatment. The patient remained in bed eleven months afterward, without improvement. Finally, excision, with the patient's consent, was performed. When the joint was opened about a drachm of what seemed to be inspissated pus mixed with a small quantity of bony debris was found. The neck of the femur was completely absorbed. There was nothing left of the globular head. There was also found a thin, sharp spiculum of bone, about an inch in length, which belonged to the lower fragment. The head of the bone was easily loosened and removed, and the spiculum of bone and the broken-down material in the cavity of the joint. Buck's extension was applied, and a long side-splint, and the apparatus was kept in position six weeks. A plaster-of-Paris splint with a large fenestra was then adjusted, which enabled her to move about a little upon crutches. The plaster splint was worn two weeks, when it was renewed because the first one produced some irritation at certain points. At the end of three months the wound was completely healed, the patient was able to get in and out of bed without assistance, was free from pain, and able to walk with crutches. The knee-joint remained considerably stiffened, and was somewhat painful.

Dr. Howe thought that trouble would have been avoided by operating twelve months previously, before the muscles and anatomical structures of the knee and ankle-joints became affected, as they necessarily would by disuse, etc. It is two years since the operation was performed, and the patient is in excellent physical condition, and able to go about comfortably by the aid of crutches. The muscles of the limb are gaining strength, and are in better condition than when the operation was first performed. The knee-joint remains stiff. No pain at the hip, except on forced flexion or abduction.

He thought the operation was justifiable in cases of intra-capsular fracture of the neck of the femur occurring in persons in good general condition; under antiseptic treatment it was safe; and it afforded as complete relief as if the fracture had united in the beginning by firm ligamentous union.

His argument was as follows: In intra-capsular fracture of the neck of the femur, ligamentous union is the best result that can be obtained, no matter what treatment is adopted. In a large number of

cases no union ever takes place, and in this class of cases the patients are helpless and bed-ridden from the beginning.

Absence of attempts at union commonly arise from the following causes:

1. Superficial caries of the fractured ends of the bone, especially affecting the upper fragment in consequence of small blood-supply.

2. The necrosed portion of bone acts as a foreign body and excites inflammatory action in the adjacent bony tissue, and ultimately brings about complete destruction of the upper fragment; much of it is absorbed, but much remains.

3. Irritation and inflammation of the surrounding soft parts produced by injuries inflicted by sharp spiculae of bone belonging to the lower fragments. These were the important causes; but malnutrition, senile atrophy, non-apposition of fragments, etc., preventing repair of bones in other parts of the body, were not to be excluded, yet excision was performed for their relief.

A good result had been obtained in the one case in which the operation had been performed, but that fact did not prove that success would attend all other operations of like character. He thought, however, that sufficient information had been gained to enable him to say that in certain well-defined cases of incurable intra-capsular fracture of the neck of the femur, excision was a justifiable operation.

The paper being before the Academy,

DR. L. WEBER remarked that, without personal experience, he was inclined to adopt the views of Dr. Howe; that is to say, if, in any given case, proper methods of surgical treatment had been employed for a reasonable length of time, the surgeon should neither fear nor hesitate to perform the operation; and, if performed early, certainly better results would be obtained than when delayed until the muscles have become atrophied and structures of other joints more or less involved.

DR. THOS. SABINE remarked that he was not exactly able to see the indication for the operation proposed by Dr. Howe. In cases of non-union after intra-capsular fracture of the neck of the femur, the head of the bone undergoes one of two changes: either it becomes absorbed, or it becomes carious. In the latter case the indication, other means failing, is to operate and remove the diseased portion of bone. Such an operation has already been once performed by Texdor; suppuration followed, and the patient died on the twenty-third day.

In ordinary cases of intra-capsular fracture of the neck of the femur, efforts to secure union must be continued for two or three months, and during that time the fractured ends of the bone become rounded, and he thought it was very unusual for the condition of the parts, at the end of that time, to be such as to permit of crepitus being obtained. He did not see how the patient could be given a more solid limb by the operation than he would have if let alone. If the case reported belonged to the class in which caries and necrosis existed, he had no question but that the operation was justifiable.

DR. LEWIS A. SAYRE remarked that he had had no experience in excision of the hip-joint in cases of simple fracture, although he had removed the head of the femur seventy-three times in cases of morbus coxarius. Texdor's operation, which Dr. S. P. Batchelder of this city had done previously, he did not regard as proper excision, for in his case as well as in Batchelder's there was simply dilatation of the fistula and removal of the loose head of the bone.

His own experience had been that, with proper treatment, union in cases of intra-capsular fracture was tolerably fair. As for treatment where union did not occur, it seemed to him that if it was evident the source of irritation was to be permanent, even though there were no sinuses or suppuration, the operation for the removal of the source of irritation was justifiable. The principle was the same as that involved in performing lumbo-colotomy for an incurable disease. He favored an early operation; the earlier the better when it was decided that the patient was hopelessly incurable so far as the fracture was concerned, for ankylosis of other joints would take place from simple disease without inflammatory action.

Dr. A. C. Post remarked that there was no reason to doubt that Dr. Howe's patient was benefited by the operation. In the course of his remarks, however, he (Dr. H.) said that he did not see why the limb could not be made as useful as when the head of the bone was excised under other circumstances. In the great majority of cases of excision performed for morbus coxarius, it must be borne in mind the patients were in childhood or early adolescence. It certainly made a great difference in the probable result, whether such an operation was performed on a patient ten or fifteen years of age or on one sixty or seventy years of age. We should hardly expect as good results in old age as in childhood. Then, with regard to the danger of the operation, the results, so far as preservation of life was concerned, were much more satisfactory in patients under fifteen years of age than in older patients. The operation was not a very safe one in adults, especially in the latter period of adult life. He had no doubt, however, that in a case similar to that reported, the operation would be justifiable.

Dr. White, U.S.A., on invitation, spoke and referred to two cases of intra-capsular fracture; in one ligamentous union occurred, and in the other—a gunshot fracture—caries resulted; the head of the bone was removed by operation, also portions of the bones of the pelvis. He thought that when sufficient time had elapsed, under proper treatment, after such fracture, and union did not occur, recourse should be had to operative measures.

Dr. Howe remarked, in closing the discussion, that excision for caries and necrosis was common, but in his case there was neither caries nor necrosis, but it was simply an old case of intra-capsular fracture in which crepitus was present months after the injury. The point in the case was that, instead of waiting for evidence of caries and necrosis, the operation should be performed. He thought that no case had been previously reported in which bony crepitus existed and the operation had been performed for removal of the head of the bone in intra-capsular fracture. With reference to Dr. Sabine's statement that such cases were not common, that might be true with reference to private practice, but certainly in Charity Hospital, and especially in the Alms-House, a large number could be found.

With regard to Dr. Post's remark concerning mortality of the operation in patients advanced in life—he thought it was not so bad as was supposed. Besides, if it was great in adults, it could not be argued from that that the same unfavorable results would follow in this class of cases; for their general condition must be good in order to permit the operation, whereas the reverse was true in morbus coxarius—the operation was performed to improve the general condition.

After adopting a resolution that the By-Laws of the Academy be suspended for the next meeting, and that the Academy meet at 7.30 P.M. instead of 8 P.M., the Academy adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, October 22, 1879.

Dr. E. L. Keyes, President, in the Chair.

(Concluded from page 520).

Dr. Mary P. Jacobi presented a specimen case of
GENERALIZED TUBERCULOSIS.

The patient was a boy of 19 months; was brought to the dispensary of Mt. Sinai Hospital, Sept. 22d. Had been ailing ever since attack of measles in August; lost flesh; skin became yellowish, and there was a slight cough. Examination found slight dulness and harsh respiration at the apex of the left lung, heard most distinctly in front. The abdomen was somewhat tympanitic, but there was no diarrhoea. No enlargement of spleen could be detected at this time. The tongue was clean. The child cried a great deal, and constantly wanted to eat, but showed no unusual thirst; yet the temperature was 103½°.

It was evident that the pulmonary congestion and induration constituted only one element of a more general disease, and the diagnosis hesitated between typhoid and miliary tuberculosis. On the 24th of September the spleen was found enlarged, but the harshness of respiration was much diminished. Temperature was 102½°. Until the 8th of October the condition remained the same. The fever was always present in the afternoon, but, according to the mother, absent in the morning. On the 8th of October, however, for the first time, fever persisted all day long. On the 9th the child vomited, and its head became very hot. On the 10th the child had become drowsy and apathetic; lay passively on the mother's lap, with the head retracted and some rigidity of the neck. The face was pale and the head cool. The rectal temperature, hitherto elevated, was only 100.5°. The pupils were normal, but the respiration was of the Cheyne-Stokes' type. Total number of respirations in a minute, 26; pulse 104°, hard, and occasionally reduplicated. The respiration was harsh in various parts of the lungs. From time to time were heard puffs of prolonged expiration. The abdomen was beginning to retract.

No doubt could longer exist of the correctness of the diagnosis of general miliary tuberculosis, with commencing meningitis. On the 11th of October the pulse was very irregular; respiration regular—40 a minute; pupils dilated; child unconscious; T. 105°. On the 13th subcrepitant râles were heard all over both lungs, indicating commencing softening; pupils contracted; slight convulsions. Oct. 14th—Occasional rigidity of limbs and of neck; T. 99½° in rectum. This evening had complete convulsion, and next morning right arm was completely paralyzed. Death on the 16th, at 11 P.M.

Autopsy on the 12th, at 3 P.M.: *Brain*.—Adhesions of dura mater to skull and of its internal surface to various parts of the visceral arachnoid; half a pint of serosity escaped during removal. Entire brain found highly oedematous, and surface of convolutions pale. Omit details of the convexity. At base, typical meningitis at an early stage. Pia thickened and infiltrated over interpeduncular space; also along Sylvian fissures, where it was adherent; also over base of cer-

bellum. No tubercles larger than 'pins' heads were discernible on the surface of the pia. Microscopic examination showed the pia blood-vessels of various sizes, surrounded by cords of tubercular infiltration in the lymphatic sheaths; successive cords forming a series of beads along the vessel. The opacities of the pia were caused by diffused infiltrations of cells similar to those composing the tubercular masses on the vessels. In the tip of the left temporal lobe, occupying the most anterior part of the middle temporal convolution, was a softened patch the size of a walnut; and in the anterior part of this was a cavity the size of a filbert. The cavity evidently represented an abscess from which the contents had escaped during the removal of the brain.

The lungs were completely studded with tubercles, nearly all in caseous degeneration. A rather large, cheesy mass, surrounded by a zone of red induration, occupied the apex of the left lung. The bronchial glands were enlarged and caseous. The spleen was enlarged and also studded with tubercle. The kidneys were congested, not tuberculous. The intestine was healthy.

The case presented several points of interest: And first, in regard to the diagnosis previous to the occurrence of cerebral symptoms. The diagnosis of general tuberculosis at such stage is confessedly difficult, although of course not impossible. The enlargement of the spleen from tubercular infiltration most closely simulates that from typhoid congestion. The extension of tubercle to the intestine would, inducing diarrhoea and tympanitis, have added other difficulties to the diagnosis than such as really existed in this case. The diagnosis was, however, made before the occurrence of cerebral symptoms; and of course, after the appearance of these, became perfectly plain.

The second point of interest concerned the original focus of the tubercular infection. Evidently a broncho-pneumonia had persisted after measles, and had been the primary origin of the tuberculosis. The question arose: Were tubercles in the lungs first formed by degeneration of cells infiltrating the peribronchial lymphatic sheaths; and did the bronchial glands become infected by lymphatic absorption from these disseminated tubercles, and then themselves constitute foci for the infection of the brain and spleen? Or, had the bronchial glands degenerated during the broncho-pneumonia, so that the tubercular infection of the lungs was secondary, like that of the other organs? It seemed probable that the first hypothesis was the correct one. Klein's researches on artificial tuberculosis showed the manner in which pulmonary tubercle was formed in the lymph-spaces around the bronchial tubes, thus differing essentially from the tubercles of the brain, where the infiltration surrounded the blood-vessels. In the first case, the irritament exciting the proliferation of the lymph-elements passes directly into the lymph-channels in the septa of the alveoli. In the second, it circulates in the blood-vessel, and is separated by its wall from the lymph-space. The ultimate result is the same, though the tubercles of the pia have not the time to develop to an advanced stage of caseation before exciting a fatal meningitis. Hence, apparently, the reason that tubercular meningitis is always basilar; the local effect of the irritament is felt from the moment the blood carrying it reaches the vessels of the brain enclosed in their lymphatic sheaths.

The third point of interest was in relation to the abscess, taken in connection with the paralysis on the opposite side of the body. On the one hand there

were numerous cases on record where abscess or tumor of this region was followed by no paralysis. On the other hand, there is a band of fibres known as the stria cornea, which passes into the head of the corpus striatum from the tip of the temporal lobe, and which is reckoned by Meynert as one of the four parts making up the motor tract. The question suggests itself, whether under certain circumstances the complete destruction of the origin of this band of fibres would not suffice to cause incomplete hemiplegia.

Certain it is, that the abscess in question was the only definite destructive lesion existing in the brain.

EXSECTION OF THE ELBOW.

DR. L. A. STIMSON presented two specimens of exsection of the elbow. The first was removed from a lad aged eighteen years, who, when nine years of age, had an attack of scarlet fever followed by arthritis, abscess on the inner side of elbow communicating with the joint, and finally ankylosis. During the nine years following, he had frequent attacks of pain, and for their relief he eventually came to the hospital. The arm proper was atrophied, the elbow was slightly swollen, there was some lateral motion and slight crepitus. The joint was excised by the latero-posterior incision. The capsule of the joint was filled with slightly altered synovia, and the articular cartilages were destroyed in part. The coronoid process had increased in length nearly an inch, so as to block the movements of the joint entirely. The result was quite satisfactory, there being good antero-posterior motion in the joint, and little, if any, lateral motion.

The second specimen was removed by the same kind of incision, from a stout negro, a patient of Bellevue Hospital, who had been attacked with pain in the elbow five years ago, leaving the joint stiff and useless thereafter. The elbow was fixed at a right angle, was entirely useless, and there was slight lateral motion with distinct crepitus. The operation was performed on the 23d of September last. The capsule was found so thickened that the cavity of the joint was obliterated. The ulna was very much overgrown, as was also the external condyle of humerus. Three and a half weeks after the operation there was no lateral motion; there was quite free flexion and extension, and the joint was capable of sustaining a weight of ten or twelve pounds.

Dr. Stimson remarked that the patient upon whom he had performed exsection of the elbow last June, and whose case was at that time presented to the Society, was able to use her arm as if nothing had happened.

There was very slight lateral motion, but not enough to create any uncertainty.

A CHRISTIAN MEDICAL UNION.—At an adjourned meeting of medical men and students, held in the parlor of the Y. M. C. A. Hall, Fifteenth and Chestnut Streets, Philadelphia, on Wednesday evening, December 3d, it was resolved to organize an association to be known as the Medical Christian Association of Philadelphia, which shall meet annually on the first Wednesday evening in January. The committee on organization recommended the appointment of a committee of medical men to act in co-operation with the Devotional Committee of the Y. M. C. A. in organizing and carrying on such plans of work as will reach the medical students in the city and improve the condition and morals of all such by surrounding them with Christian influences.

Correspondence.

DIPHThERIA AND BENZOATE OF SODA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In yours of November 29th, reference is made to a communication from the minister of Russia, Mr. Shishkin, in which the benzoate of soda is recommended to the American public, through the *New York Herald*, as a remedy for diphtheria. You justly remark that "no reliable discovery in medicine remains long without being published throughout the whole medical world." While the benevolent spirit which characterizes our representatives abroad in calling the attention of our people to new discoveries in medicine is most praiseworthy, such efforts usually result, alas! only in arousing hopes which end in disappointment. Thus, cundurango appeared with blatant claims as a specific for cancer, but now it is almost forgotten; and erythroxylon coca, while possessing some merits, does not seem to produce in the United States the beneficial effects which are said to follow its use in Peru. The laity do not seem to understand that all, or nearly all new remedies, which possess decided merits, are the subject of careful experiment, and are finally placed upon the list of permanent remedial agents.

With regard to the benzoate of soda, a notice appeared in the *American Journal of Medical Sciences* for January, 1878, giving an abstract of the results of experiments performed by Mr. J. Graham Brown, Senior President Royal Medical Society, Edinburgh, in Prof. Klebs's laboratory. He was endeavoring to ascertain what drugs seemed to have an influence over the diphtheritic process. His conclusions were believed to indicate:

"1. That the contagious fluids of diphtheria are rendered powerless to propagate the local disease after mixture for a longer or shorter time with solutions of hydrochlorate of quinia, salicylate of soda, and benzoate of soda.

"2. That the most powerful of these three is benzoate of soda.

"3. That the administration of benzoate of soda hypodermically, previous to the inoculation of diphtheria, has a power of preventing the establishment of the disease; but that this protection only extends to a certain length.

"Mr. Brown very properly remarks that it would be very rash to suppose that any one of these points has been firmly established by the amount of evidence which is contained in this research. There are so many sources of error ever present, as to preclude such a possibility. Still, however, the *uniformity of the results* obtained is so striking as to increase greatly their value."

At the time of the appearance of the above article, I had a case of severe diphtheria under my care, and used the following as a gargle. B. Acid benzoic., ʒi.; sodæ bicarb., ʒi.; glycerin., ʒi.; aquæ, ʒiij. M. My note-book states that the membrane was loosening on the following day, but does not refer to any special action of the gargle. The case terminated fatally, nasal hæmorrhage and vomiting of a thin, dark fluid having ultimately set in.

Benzoic acid, closely allied to benzoate of soda, was the subject of experiments made by John Dou-

of various substances in preventing the generation of animalculæ or the development of their germs, with special reference to the germ theory of putrefaction." The preventive properties of sixty-seven substances, such as carbolic acid, sulphate of copper, and nitrate of ammonium, were tested by mixing solutions of them respectively with a filtered solution of hay, a certain quantity of urine, and a mixture of beef-juice and egg-albumen. The three mixtures were made in definite proportions, set aside for a certain time and examined microscopically. Where motion or life was perceived, the substances were added in larger proportion or conversely, and "the process repeated till a point was gained where none or only the faintest movement was perceptible." Then the strength of the solution was ascertained and its preventive power noted." To secure exactness, the experiments were afterward repeated. It was decided that "amongst the organic acids the 'benzoic' is first in average, though third in the albumen column. This substance, it appears, has not received the attention it merits. No doubt gum benzoin has long been used in the preparation of fumigating pastilles to overcome unpleasant odors, but the general impression is that these are merely masked, not destroyed. The results of the experiments, however, indicate something more than this; because, although the albuminoid preventive point of picric acid is much higher than that of 'benzoic,' and though that of carbolic acid equals it, still it has an average greater than the former, and double that of the latter. Its mode of action is not clear; probably it is assisted by the small quantity of empyreumatic oil always present in its commercial crystals."

No doubt benzoate of soda has been employed in this country against diphtheria. The prominence given to it by your journal will develop new facts with regard to its antizymotic properties.

Respectfully,
F. A. BURRALL, M.D.

48 WEST SEVENTEENTH STREET.

"STATE MEDICINE."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR—If your Washington correspondent, Dr. Ryburn, will read my essay with sufficient care, he will find that, while the adoption of the principles there advocated may serve to curtail the display of a certain amount of superfluous official energy, they will, nevertheless, confer upon sanitary authorities all the power which is needful for the proper management of disease in its relations to public health. No one denies the right of the State to guard the equal rights of all its citizens. If we then admit, for the sake of argument, that the domestic epidemic diseases are injurious to the community, there can be no doubt that the authority of the government should be exercised to keep people from spreading infection through the highways and public places which are intrusted to the care of the central power. But, beyond this, that authority cannot proceed without flagrant injustice. It cannot enter the home of a citizen, and command him to order it thus and so, without unjustly abridging his right to use his property as he pleases within his own private sphere. To use the comparison employed by the doctor, the police authority has a right to prevent a man from making a bonfire of his house, because he would endanger the safety of other houses:

but no power has any right to prevent that man from burning his house piecemeal in his stove, if poverty or his peculiar whims incline him to make such an end of his property. In like manner, the government cannot justly interfere with the legitimate business of a citizen, for the sake of preventing the spread of disease, unless it makes compensation for all direct losses which may be thus occasioned; for it is a well established principle of social science that the State cannot, without injustice, take from the citizen more than it returns to him. When, therefore, a sanitary official destroys the business and the income of a family for the sake of other citizens who have no claim upon them, and makes no compensation for the loss, he is guilty of the grossest injustice.

Such are some of the reasons which make it wrong for sanitary authorities to cross the line which separates the private life of the citizen from his public relations. Many others suggest themselves to the thoughtful mind, but I will not unduly occupy your space by their recital. As for the measures of compulsion which may be justly employed by the State within its legitimate sphere, the relations which exist between the public life and the private life of citizens are so numerous and so delicate that it is seldom expedient for the State to intervene in the management of domestic epidemics. The reasons of this are founded upon experience, and have their origin in the constitution of human nature. Experience shows that when the central authority has provided means for the preservation of order and the maintenance of justice, the unimpeded energies of the individual units of society will secure for themselves all that is attainable by the community. But when a government undertakes to "stamp out evil"—whether moral or physical, it matters not—it invariably fails to accomplish its purpose; or, if it seems for a time to be successful, its success is purchased by the creation of evils which are often worse than those which were destroyed. Witness the experience of France when she eradicated Protestantism, and by the same act well nigh destroyed the industries and the moral sense of the nation. Witness the outcome of all attempts to destroy foreign trade by prohibiting duties, impoverishing the nation and creating an irrepressible system of smuggling. Witness the ruin of a flourishing export trade in live cattle, through the folly of a single ignorant health officer at the Chicago stock-yards. Witness the utter failure of the attempt to suppress scarlet fever by the enforcement of methods against which the British Medical Association has entered its deliberate protest—methods which actually set a premium on the concealment and unsuspected propagation of disease. Free trade in religion, in merchandise, and in health, will always yield the highest results that are conceivable. The accuracy of the parallel—Dr. Reyburn to the contrary notwithstanding—between the relations of the State to the religious welfare of its citizens and its relations to their bodily health has not escaped the notice of philosophers. It is Herbert Spencer who declares (*Social Statics*, p. 406) that "there is a manifest analogy between committing to government guardianship the physical health of the people, and committing to it their moral health. The two proceedings are equally reasonable, may be defended by similar arguments, and must stand or fall together. If the welfare of men's souls can be fitly dealt with by acts of parliament, why then the welfare of their bodies can be fitly dealt with likewise. He who thinks the State commissioned to administer spiritual remedies, may consistently think that it should administer material

ones. The disinfecting of society from vice may naturally be quoted as a precedent for disinfecting it from pestilence. Purifying the hearts of men from noxious vapors may be held quite as legitimate as purifying their moral atmosphere. The fear that false doctrines may be instilled by unauthorized preachers, has its analogue in the fear that unauthorized practitioners may give deleterious medicines or advice. And the persecutions once committed to prevent the one evil countenance the penalties used to put down the other. Contrariwise, the arguments employed by the dissenter to show that the moral sanity of the people is not a matter for state superintendence, are applicable, with a slight change of terms, to their physical sanity also." It was once thought wise and proper for the State to compel uniformity of belief in matters of religion. But the result was rebellion, secession, hatred of religion. The same result will follow similar compulsory efforts in behalf of health on the part of sanitary officials. If they will limit their functions in accordance with the principles advocated in my previous essay, there need be no doubt "that intelligent citizens, as a class, (will) submit to reasonable regulations, and even restrictions for the sake of the common good." But if these officials, as a class, go on as some of them have commenced, it will not be very long before there will be evolved among "intelligent citizens" a feeling towards sanitary administration which will need but little to ripen into something closely akin to contempt.

HENRY M. LYMAN.

CHICAGO, ILL., Nov. 28, 1879.

PROPRIETARY AND TRADE-MARKED ARTICLES, OR NOSTRUMS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—"Pharmacopœia" is infinitely obliged to Julius Fehr for his strictures about patented and trade-marked articles. I was always under the impression that Chlorodyne, Winslow's Soothing Syrup, Tamar Indien, and Grains de Santé were patented as far as the English, French, and American laws permitted. A trade-mark is a partial patent at least, and often a very complete one as far as the results go. But leaving this quibble on his part, I will proceed to the more important and serious side of the question. All these articles are proprietary, and hence nostrums, for nostrum is derived from *noster*, ours, and merely means personal possession to the exclusion of others. The rules of the American Medical Association, of the State Medical Society, and of all New York County Medical Societies, discourage the use of these more or less secret and exclusive remedies, and absolutely forbid regular and honorable physicians from giving certificates for them. A *nostrum* is not necessarily a secret or quack medicine, although it generally is; but it is always a proprietary article, and often a partially patented or trade-marked substance, and occasionally a completely patented one. The publication of the formula does not relieve it from its proprietary or nostral character, for this is merely the specification of the contents. The mode of combination is generally, if not always, kept secret, and there is always some mystery or secrecy about the matter. I even hold that a certificate by physicians for a patented rubber-cushioned axle is out of order. For all these certificates, although given originally for publication in medical journals only, are always or nearly always reproduced in secular journals and even newspapers, and in handbills and circulars to lay persons, which

are often sent about in the mails, and even thrown broadcast into door- and cellar-ways, to the infinite degradation of the medical profession.

A patent, according to Webster, is merely a writing given by the proper authority and duly authenticated, granting a privilege to some person or persons. Patent comes from *pateo* to open, and letters-patent are merely those which are open to the perusal of all, but conferring franchises, etc.

PHARMACOPOEIA.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from November 30th to December 6th, 1879.

BROWN, H. E., Capt. and Asst. Surgeon. When relieved by Asst. Surgeon Middleton, to report to the Comd'g Officer, Ft. Duncan, Texas, as Post Surgeon. S. O. 252, C. S., Dept. of Texas.

TAYLOR, M. K., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to go beyond limits of the Department, and apply for an extension of one month. S. O. 251, Dept. of Texas, Nov. 28, 1879.

CLEARY, P. J. A., Capt. and Asst. Surgeon. To report in person to the Comd'g General, Dept. of the East, for assignment to duty. S. O. 271, A. G. O., Dec. 2, 1879.

MIDDLETON, P., Capt. and Asst. Surgeon. Assigned to duty as Post Surgeon at Post of San Antonio, Tex., and to relieve Asst. Surgeon M. K. Taylor, as attending Surgeon at Dept. Hdqrs. S. O. 252, Dept. of Texas, Nov. 29, 1879.

CARVALLO, C., Capt. and Asst. Surgeon. To accompany troops ordered from Rawlins to Ft. Laramie, Wyo. T., and there take post. S. O. 109, Dept. of the Platte, Nov. 29, 1879.

ELBREY, F. W., Capt. and Asst. Surgeon. Assigned to duty at Ft. Bayard, N. Mex. S. O. 238, Dept. of the Missouri, Nov. 28, 1879.

HOFF, J. V. R., Capt. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for an extension of two months. S. O. 270, A. G. O., Dec. 1, 1879.

COMEGYS, E. T., 1st Lieut. and Asst. Surgeon. When relieved by Asst. Surgeon Brown, to report as Post Surgeon to the Comd'g Officer, Post of San Diego, Texas. S. O. 252, C. S., Dept. of Texas.

APPEL, D. M., 1st Lieut. and Asst. Surgeon. Granted leave of absence for one month, with permission to apply for one month's extension. S. O. 241, Dept. of the Missouri, Dec. 2, 1879.

SMITH, R. E., 1st Lieut. and Asst. Surgeon. His resignation accepted by the President, to take effect April 1st, 1880. S. O. 271, C. S., A. G. O.

QUARANTINE AT NEW ORLEANS.—A meeting of the Citizens' Auxiliary Sanitary Association was held at New Orleans, December 1st. The object of the meeting was to forward the project of establishing a central quarantine station at New Orleans, under the control of the National Board of Health. As the establishment of such a station was opposed by the State Board of Health, that body was only represented at the meeting by one member. A resolution was passed recommending the proposed plan of a quarantine station on Ship Island.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 6, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Nov. 29, 1879...	0	4	56	3	96	62	0	0
Dec. 6, 1879....	0	8	48	1	122	51	0	0

THE LONDON LANCET AND THE CONTROVERSY OF SPASMODIC STRICTURE.—In a recent number of the *Lancet* (Oct. 18th) is a notice of the discussion between Drs. Otis and Sands concerning spasmodic stricture of the urethra. The editor of the *Lancet*, in the course of his remarks, takes occasion to throw out the insinuation that the statements of Dr. Otis are unreliable. We are much surprised at this, as the gentleman in question is considered at home to be thoroughly trustworthy. Dr. Sands has come to the rescue in a timely and effective note, which appears in the last issue (Nov. 22d), and which explains the reasons for the apparent misapprehension on the part of the *Lancet*. This, coming as it does from the other party in the controversy, is in exceedingly good taste, and relieves Dr. Otis from any possible imputation as conveyed in the columns of that journal. It would have been more in keeping with the British ideas of justice for the editor of the *Lancet* to have followed the example of Dr. Sands in this matter.

THE CLIMATE OF TEXAS.—Dr. D. B. Messinger, of Wilson Co., Texas, writes: "After a residence of seven years in West Texas, I find it remarkably beneficial to chronic invalids coming here from other States. This is accounted for by the mildness of the climate, the dryness and purity of the atmosphere, and the extraordinary number of pleasant days during the year, enabling one to have out-door exercise or recreation almost uninterruptedly. For the benefit of those who may not have the time or strength to look up the most salubrious points, I will suggest the centre of the Oak Openings or timber belt, about forty miles below the mountain region and Wilson County, combines advantages not found elsewhere, having plenty of game for the sportsman in its forest and fish in its rivers, numerous medicinal springs of tonic and alterative waters, some peculiarly beneficial to consumptives. Chronic invalids are cured or relieved by a winter's sojourn in this salubrious region, which is undoubtedly one of the best in the United States for cases of phthisis, bronchitis, asthma, catarrh, rheumatism, and dyspeptic conditions."

DR. ALEXANDER MACALISTER has recently been elected to the chair of Anatomy and Surgery in the University of Dublin.

TYPHOID FEVER.—Sir Wm. Jenner has recently delivered an address on the "Treatment of Typhoid Fever." The question of the contagiousness of this disease has been thought of so much popular interest, that it has been discussed by Dr. T. Macalister in the November issue of the *Nineteenth Century*.

PROFESSOR ERASMUS WILSON.—A munificent offer has been made by Mr. Erasmus Wilson to erect for the Margate Sea-bathing Infirmary a new wing, with wards for seventy patients, a tepid swimming-bath, and a chapel. The total cost will be over \$100,000.

THE NEW ANÆSTHETIC.—M. Paul Bert's gaseous mixture—nitrous oxide and oxygen, under pressure—is now being used in two Paris hospitals. It has been administered in cases lasting over an hour.—*British Medical Journal*.

MEDICAL STUDENTS.—There are 5,231 medical students in the twenty-four larger German universities. The number of medical students in the nineteen English medical colleges was, up to October 29th, 898. In the United States there are between sixty and seventy regular schools. The number of students is between eight and nine thousand.

VIRGINIA STATE MEDICAL SOCIETY.—This Society held its Tenth Annual Meeting at Alexandria, Va., November 21st and 22d, Dr. L. S. Joynes, the President, being in the chair. Dr. Oscar Wiley and President Joynes delivered annual addresses.

The question of investigating the mineral waters of the State was discussed, and referred to committees. The project of forming a Medical Aid Society was also favorably discussed, and referred to a committee.

The following officers were elected for the ensuing year: President, Dr. Henry Latham, of Lynchburg; six Vice-Presidents: Drs. W. H. Bramlett, R. C. Powell, G. K. Robinson, W. P. McGuire, W. W. Daughtry, C. C. Conway. Treasurer, Dr. L. B. Edwards. Secretary, Dr. Charles S. Britton.—*Southern Clinic*.

ST. JOHN'S GUILD.—At the recent meeting of the Board of Trustees of this Guild, Rev. John W. Kramer, D.D., was elected Master.

DIRECTORY FOR NURSES.—A Directory for nurses has recently been opened in the Medical Library Building at Boston. It is under the management of three experienced ladies and two active physicians. It is intended to have here a full registry of the names and residences of nurses, with a statement of their engagements, and especial qualifications. Applications from the country by letter or telegram will be attended to. Already sixty or more nurses have registered, and the plan has every prospect of success.—*Bost. Med. and Surg. Journ.*

MASSACHUSETTS HEALTH BOARD.—This board has recently sent out a circular letter to all the physicians in the State, requesting replies to a series of questions upon sanitary matters.

A SANITARY CONVENTION AND EXHIBITION.—The Michigan Board of Health has undertaken to get up a sanitary convention and exhibition, and has sent around circulars of invitation to medical men and sanitarians both at home and abroad. The proposed meeting will be in Detroit, Jan. 7, 1880, and will continue for two days. Papers will be read on the following subjects: The "Abattoirs of Cities," "School Hygiene," "Ventilation of Living and Sleeping Rooms," "Cooking Schools," "Plumbing for Dwellings," "Prevention and Limitation of Contagious Diseases," "Inspection of Food," and "Water Supply to the Family." One feature of the convention will be the exhibition of sanitary appliances, or of models, drawings, and photographs thereof, when too bulky for transportation—the Board of Health reserving the right to decline articles deemed un-

suitable. These will be examined by competent judges, and certificates of merit awarded. The convention is thus officered: President—Ex-Gov. H. P. Baldwin. Vice-Presidents—the Hon. James Birney, William Brodie, M.D., the Hon. W. L. Webber, Prof. J. M. B. Sill, Mrs. J. J. Bagley, Mrs. Morse Stewart. Secretary—C. C. Yemans, M.D., No. 84 Lafayette Avenue, Detroit.

HONORS TO DR. LEWIS A. SAYRE.—At the annual meeting of the Dutch Society of Natural and Medical Science, held in Amsterdam, November 5, 1879, our countryman, Dr. Lewis A. Sayre, was made an honorary member.

A PUBLIC *concours* for the position of Lecturer on Gynecology in Rush College, Chicago, is to be held on the evening of Jan. 6, 1880. Candidates will lecture before the faculty and class on subjects previously assigned them. Applications will be received by the secretary from any part of the country.

THE STAFF OF THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.—Dr. Morris Longstreth was elected, at the last meeting of the Board of Managers of the Pennsylvania Hospital, successor to Prof. J. Aitken Meigs, whose death caused a vacancy in the staff of visiting physicians to the hospital. Dr. Longstreth has been pathologist to the hospital for a number of years past.

OBSTETRICAL PRACTICES AMONG THE JAPANESE.—After pretending to reduce an assumed irregular presentation by abdominal manipulations, the medical man makes the patient stand up and put her arms around his neck. He then braces his shoulder against her breast, and presses his knees up between hers, in such a manner that she is firmly supported. While in this position, he practises a lateral massage with his hands, beginning at the seventh cervical vertebra and rubbing downward and forward, snapping his fingers all the time to distract the attention of the woman. Finally, he rubs the nates and hips with the palms of the hands from behind forward, beginning at the sacrum, and repeating the movements from sixty to seventy times. This process is repeated every morning after the fifth month.

It is scarcely necessary to add that the practising accoucheurs in Japan are, as a rule, advanced in age.—*La France Médicale*.

THE LATE DR. OLIVER WHITE bequeathed his library and one thousand dollars to the Presbyterian Hospital of this city, five hundred dollars to the New York Academy of Medicine, and five hundred dollars to the Society for the Relief of Widows and Orphans of Medical Men; and the late Dr. Freeman J. Bumstead also willed his entire medical library to the New York Academy of Medicine.

DR. VALLET, of Orleans, France, died in that city on the 1st of November, at the age of 85 years. He had been a practising physician for the unusually long period of 61 years. He was formerly chief surgeon of the Hôtel-Dieu of Orleans, and was a corresponding member of the *Académie de Médecine*, and of the *Société de Chirurgie* of Paris.

SOUTH-EAST MISSOURI MEDICAL SOCIETY.—This society, at its annual meeting held November 9th and 10th, passed, by unanimous vote, the following resolutions:

Resolved, That the South-east Missouri Medical Association cordially endorses the action of Harvard Medical College, Bellevue Hospital Medical College, Medical Department of Yale College, Medical Depart-

ment of University of Pennsylvania, Georgetown Medical College, and the Chicago Medical College, in their endeavors to elevate the standard of medical education by making a preliminary examination and a three-year course the requisite to graduation.

Resolved, That no member of this Association should receive any student unless said student first pledges himself not to enter any medical college in the United States, except those requiring a preliminary examination and a three-year course of graded instruction.

The Society elected Dr. E. A. Simpson, President, and Dr. A. A. Bondurant, Secretary, for the ensuing year. Its next meeting will be at Commerce, the first Tuesday in May, 1880.

At the close of its regular proceedings, a grand banquet and ball was tendered the visitors by the profession in Cape Girardeau. This was a very successful and happy affair.

DR. WALTON H. PECKHAM.—Dr. Peckham died at his residence in this city, December 6th. He had for a long time given up the practice of medicine, and had been engaged in business pursuits.

FIRE AT BELLEVUE HOSPITAL.—On the night of December 6th, a pavilion ward at Bellevue Hospital caught fire and was burned nearly to the ground. There were twenty-nine patients in the ward, part of them children. The pavilion was of wood, and burned so rapidly that three children were lost in the flames.

The building was known as Ward 31. When first put up it was devoted to cases of erysipelas, bad burns, cancers, etc. It being too near the hospital building for such purpose, another pavilion for these cases was put up, and Ward 31 was devoted to children and women. It was not a suitable structure for a hospital ward, and had already been condemned by the commissioners. A brick building will soon be erected to replace the burnt one.

THE PLAGUE IN RUSSIA.—The German commission, consisting of Drs. Hirsch and Summerbrodt, sent to Astrachan to study the Russian plague, have returned and made their report. This report gives a history of the disease and of the epidemic as complete as it could be made. Nothing especially new or valuable, however, was brought back, as the commission did not see any cases personally, and had to get information second-hand.

TRAINED NURSES.—A very instructive address was recently delivered before the Washington Training-School for Nurses, by Dr. Jos. Taber Johnson. A history of the origin of training-schools in this country is given. It shows how slow and hard the work has been to furnish the public with something of which it is in urgent need.

Nurses first received practical instruction in the hospitals of Philadelphia. It was in New York, however, that the first regularly organized school was established with all the necessary arrangements for systematic training. This was at Bellevue Hospital. The second school was opened in Boston, Nov., 1873; the third in New Haven. There are now schools in a number of the large cities. The value of such schools has been thoroughly appreciated, and their success has in most cases been rapid and complete.

The career of a trained nurse opens up a new field for young women. It is a life which has many pleasant features, in spite of the labor and responsibility it exacts. A good trained nurse is now heartily appreciated by the physician, and rarely fails to earn the good-will and gratitude of the patient. ;

The pay of trained nurses is generally better than that given to the same class of women in any other branch of work. From \$10 to \$20 a week are the limits generally.

The Training-School for Nurses at Washington seems to have had many difficulties to meet. This was due to the fact that the largest hospital in the city is in the hands of the Catholic Sisters of Charity. Provision has, however, been made for instruction at the Columbia and Freedmen's Hospitals, and it is probable that the school will now become prosperous.

The supply of trained nurses in most places is lamentably small, and it is to be hoped that efforts to increase the number will be successful.

CHOLERA IN JAPAN.—Dr. D. B. Simmons, of Yokohama, writes: The cholera epidemic which has been raging during the summer from one end of the empire to the other is rapidly abating. In Yokohama there have been but two cases the last ten days. In Tokio the number is also greatly reduced, not more than two or three cases being daily reported. Total number of cases for all Japan, up to Oct. 25, 156,734. Deaths, 90,627.

ROTTEN TEA.—The *London Times* announces that rotten tea, the refuse of importations of 1871 and 1872, colored with greenish paint, is being sold in London. As no place gets far ahead of New York in the matter of adulterations, we can reasonably expect some of the same among us very soon.

MENTHOL AS AN ANTI-NEURALGIC.—Some additional testimony to the value of menthol in sciatica has been sent to the *Lancet*. In three cases all were relieved for a time, and one notably so. The solution used was a weak one (gr. j. to ℥ xx. of rectified spirits).

DR. THOS. KENNARD died at St. Louis, Nov. 9th. He was ex-president of the St. Louis Medical Society, and had long been a prominent man in the profession.

MEDICAL OFFICE IN INDIA.—The position of principal medical officer in India, now held by Surgeon-General J. H. H. Innes, C.B., is to be vacated. The successor will probably be Surgeon-General T. Crawford, M.D.

PRISON EPIDEMICS.—According to the *Louisville Medical News*, 289 prisoners in the penitentiary at Frankfort are down with the diarrhoea. A communication between the drains and the water-supply is supposed to have been the cause. The Kentucky Penitentiary is said to be in a very filthy state.

BOOKS RECEIVED.

DICTIONARY OF GERMAN TERMS USED IN MEDICINE. By GEORGE R. CUTTER, M.D., Surgeon to New York Eye and Ear Infirmary. New York: G. P. Putnam's Sons. 1879.

BIOGRAPHICAL DICTIONARY OF PHYSICIANS. By W. B. ATKINSON, M.D. Second edition. Philadelphia: Robson. 1879.

TRANSACTIONS OF MISSISSIPPI STATE MEDICAL ASSOCIATION. Vol. xii. 1879.

TRANSACTIONS OF MEDICAL SOCIETY OF NEW JERSEY. 1879.

TRANSACTIONS OF MEDICAL SOCIETY OF STATE OF PENNSYLVANIA. Vol. xii. Part II. 1879.

AMERICAN HEALTH PRIMERS. The Mouth and the Teeth. By J. W. WHITE, M.D., D.D.S. Philadelphia: Lindsay & Blakiston. 1879.

Original Lectures.

CLINICAL LECTURE ON

DEMENTIA, IDIOCY, IMBECILITY;

BEING THE THIRD OF A COURSE OF FOUR CLINICAL LECTURES UPON THE DIAGNOSIS OF INSANITY,

DELIVERED AT THE NEW YORK CITY ASYLUM FOR THE INSANE, WARD'S ISLAND.

By A. E. MACDONALD, M.D.,

MEDICAL SUPERINTENDENT.

GENTLEMEN:—The mental conditions which we are to study to-day differ essentially from those which have engaged our attention at our former meetings. Then we were confronted by minds which had lost none of their normal activity, which were, if anything, more than normally active, and which found their difference from ordinary sane minds in the abnormal manners and channels in which their activity was manifested. The common phrase by which an insane person's condition is expressed—that he has “lost his mind”—could not, with propriety, therefore, be applied to the victim of either mania or melancholia; for there is disturbance, not loss. But, as applied to the sufferer from dementia, and only when so applied, the term is a proper one. As regards imbecility and idiocy, they have this in common with dementia, that in each of the three conditions there is deficiency of mind; but in their case the deficiency is an original one, while in dementia it is acquired. Hence, it is customary to group them under the designation “*amentia*,” so marking the essential point of distinction between them and dementia.

Dementia, then, to begin with, is that form of insanity in which we find not merely distortion or misdirection of mind, but actual deprivation of it. In the patients before you, you see a very different condition of affairs, both mentally and physically, from that which marked those who occupied their seats at either of your previous visits. You find a dull, stolid, heavy countenance, a fixed attitude, and an utter failure to respond to external influences, or to indicate in any way that the patient is conscious of his surroundings. Before—in the one instance, as part of the general excitement; in the other, from fear or suspicion as to their possible bearing upon them—the patients manifested a lively and anxious interest in our movements and our words. Now the eyes and the ears of our patients seem to take cognizance of neither the one nor the other.

Of dementia, as of the other forms of insanity which we have already considered, different divisions are made by different authors and teachers. Some speak of the disease as either acute or chronic, while others recognize primary and secondary dementia as constituting its two forms. The first classification I consider undesirable, for, whatever its origin or duration, there is at no time anything *acute* in the symptoms of the disease; and I prefer to adopt, and to recommend to you the adoption of the latter. By secondary dementia we mean that form in which the disease comes on as a consequent or terminal condition in the course of an attack of insanity of one or other of the types which we have already considered,

or after apoplexy or epilepsy, or some other nervous disease; or yet, again, in the general decay of the vital powers which attends advancing age. By primary dementia we understand the form in which the insanity possesses the characteristics of dementia from the outset. Of the two, secondary dementia is relatively of very much more frequent occurrence, primary dementia being met with comparatively rarely.

We have already spoken of the approximation of the different forms of insanity, one toward the other, and of the mixed and doubtful cases which occupied the border-line between each; and in the case of mania and melancholia we found that by no means all the patients showed only the typical evidences of one or the other form, but that in many they were so mingled or so alternated that it was sometimes hard to say to just which side the patient belonged. Similarly, in dementia, there is an approach toward its next neighbor, melancholia; and primary dementia and melancholia with stupor, have much in common in their symptoms. In a general way, we may usually differentiate upon the grounds that melancholia with stupor is found in older persons, and that there are emaciation, refusal of food, want of sleep, suicidal tendencies, which are not met with in dementia.

CASE I.—Here is a young man whose disease takes the form of primary dementia, and whose attack commenced at about the average age of patients so attacked—in his twentieth year. The victims of primary dementia are all young, ranging from fifteen years upward, and they are generally of weak constitution—boys and girls who have outgrown their strength, as the saying is. In some instances the attack comes on very suddenly, and then it usually owns a moral cause. Sudden fright is the most common, and the patient is literally frightened out of his wits. From this form recovery is more likely to occur than from that of which we shall presently speak, and from which the patient before you suffers. Girls are, perhaps, more frequently than boys, the victims of the suddenly developed form; and coincident with it, and lasting as long as it continues, there is then suppression of the menstrual function. There seems to be complete prostration and stagnation of the bodily and mental functions; the circulation is depressed, and the extremities cold and congested; there are constipation and retention of urine, and general relaxation of the muscles, so that the patient sits in a listless and stooping position. The mind seems closed to all external impressions, and there is, after recovery, if that takes place, no recollection whatever of what has happened during the continuance of the disease. This period is a perfect blank to the patient, who cannot even judge as to its extent; whereas, after recovery from other forms of insanity, the patients have usually a tolerably clear remembrance of what was said and done in their presence, even at times when they appeared to pay the least attention and to be the least capable of understanding. Refusal of food is common in the cases of which we are speaking—or, I should say, rather neglect of it. The patient will not feed himself, nor even convey the food to his mouth if it is placed upon the table before him; but there is not active resistance to feeding, and if food be placed in the mouth it will be swallowed mechanically.

But, as we have said, primary dementia oftener approaches in a different way, and has different characteristics, as in the case of this boy. Here the approach was gradual; there was a recognizable period of change, and there are two points in the history

which may always be pretty confidently looked for when the approach is thus gradual. These are hereditary predisposition and self-abuse. We have learned regarding him that his father and two sisters have been of unsound mind, and that he was himself a masturbator. This is the common—in fact, the almost invariable history in such cases. The children have been considered uncommonly bright and studious, and it is quite usual for the parents to boast of this fact, and tell how they would spend hours alone over their books; the suggestion that the solitude was perhaps sought for another purpose being always indignantly rejected. And this leads me to speak of masturbation as a factor in the production of insanity, and of the undue importance that has at times been assigned to it. There is a good deal of fashion in this matter of the assigned causes of insanity; sometimes one ostensible cause is taken into favor, sometimes another, and masturbation has had its turn with the rest. Not many years ago it was gravely asserted that a fabulous percentage—75 or 80, I think—of the inmates of asylums owed their insanity to the practice of self-abuse, and this statement went the rounds of the press, and was duly turned to their own account by the venders of certain quack medicines. Such exaggerated claims are not now generally made, but still the efficiency of this particular cause is, in my judgment, greatly overrated by some. Apart from the special form of insanity of which we are now speaking, I doubt if masturbation is to blame for many cases, although we do find patients with other forms practising it. In these cases, however, it is far more likely that the insanity has preceded, and led to the habit, than the reverse. In the present instance, however, and in cases of this class, its potency cannot be doubted, and the existence of the habit, the gradual approach of the disease, and the hereditary taint, combine to mark the case as incurable.

CASE II.—Here is a fair type of secondary dementia. He is a man of forty-six, and has been about ten years in asylums. In his case the primary disease took the form of chronic mania, and you see the stiff wiry hair so often associated with that condition still remaining. He is fat and well-nourished, does not speak at all, has a foolish smile, and shows the interest of a child in bright colors and trinkets. This taking on of flesh usually attends the transition to secondary dementia from the more active forms of insanity. The delusions are lost, life becomes mechanical and automatic, and the patient becomes gradually more and more stupid, and passes down through the animal grades until his existence is more like that of a vegetable than anything else.

CASE III.—This man is a case of senile dementia. His loss of mind has not followed upon any other form of insanity, but has simply come on gradually as his years have gathered. He is seventy-eight years of age, and you see that he is childish and simple. He prattles away in a silly manner, is sometimes petulant and irascible, but, as a rule, gives very little trouble, and is easily controlled and directed. The prominent feature in these cases is loss of memory, and particularly as regards recent events. Occurrences which were impressed upon the mind in earlier days, when it had not lost its vigor, are remembered and detailed with considerable accuracy; but present happenings seem to make no impression, and are at once forgotten. For example, the senile dementia will tell you very correctly some story of his early life, and a few hours afterward he will tell it to

you again, equally correctly, but quite forgetting that it is not new to you.

Of course, there is nothing to be done for such cases with any expectation of improvement; the only thing is to make them comfortable for the rest of their days, and this may generally be done at their homes. The physician's connection with them is more apt to be in the capacity of adviser upon the point of their ability to make wills or execute contracts. Then it will be well to remember that the law does not require a man performing such acts to be as strong of mind as he ever was, but only to be strong enough to appreciate the nature and the effect of his acts; and further, that in this, and indeed in all forms of insanity, there is occasionally, just before death, a temporary clearing up of the mind, which takes it back for the time almost to its former vigor.

CASE IV.—Among the synonyms for dementia sometimes used, is that of "cataleptoid insanity." Here is a case that illustrates the occasional appropriateness of the term. This man has sat immovable during all the time that I have occupied in introducing the other patients. His head is bent forward, his eyes fixed, his mouth open, with the saliva dribbling from it, and his arms hanging by his sides. When I take hold of his arm and urge him, he rises, and again becomes immovable. As I place my hand on his shoulder and push him, he steps out like a walking doll, and the moment I stop he stops, and there he will stand until he is moved again. Now I raise his arms and bend them in different positions, and they remain just as I place them. I bend one knee and raise his foot from the ground, and he stands steadily upon the other. I press him back into his seat, raise both feet in the air, and in that position he will remain until it is changed for him. This is an excellent example of what has been called the "lay-figure" condition, or the condition of "waxy mobility." Of course, this man does nothing for himself, but has to be attended to and moved about like a machine. Even if food were placed in his mouth, it would remain there unswallowed, and so he has to be fed with the stomach-tube. He has to be taken up and dressed and undressed and put to bed again; and he passes his dejections without heed, if he passes them at all. Often the bowels have to be relieved by injection, and the bladder with the catheter.

We pass now from the dementes to the idiots and the imbeciles. Idiocy and imbecility are not properly forms of insanity, certainly not so under the definition which we agreed upon; for their difference from the normal condition cannot be determined by comparison of the individual suffering with himself at another time. In their case we are obliged to set up an ideal standard and judge their victims by it, and not by remembering their normal condition. They are, in fact, in their normal condition. With dementia they have this in common, that there is in each case want of mind; but in one case the want arises from loss, and in the other from original absence. Differing in this from dementia, they differ between themselves, idiocy being a congenital condition, and imbecility a condition of arrested development, the arrest occurring after birth, and at a longer or shorter interval. I do not mean to say that an idiot or an imbecile may not be insane. His brain may take on diseased action, and he may have an attack of acute mania or of insanity of some other form as well as another. But the existence of his idiocy or his imbecility does not in itself constitute insanity. In other words, he may be of defective mind without being of unsound mind.

The patients before you are not inmates of this Institution, but come from the Idiot Asylum on Randall's Island, by the kind permission of its superintendent, Dr. J. C. Howard. Among them are some idiots and some imbeciles, but in each one you will notice one or more defects in physical development which establish a decided contrast between not alone them and ordinary mortals, but between them and the insane persons who have already appeared before you. Taking the idiots first, you will notice a very decided difference between them—an anatomical one. Some of them have very small heads, some of them very large, and we divide them, therefore, into microcephalic and macrocephalic idiots. As a rule, the large-headed are, more properly speaking, imbeciles, for the brain is not simply undeveloped, but diseased; but this is not always so. The capacity of the skull does not always indicate the size of the brain; and the former may be very great, and the latter very small. In a general way we may say, that the brain of the idiot represents quality without quantity; while of that of the imbecile the reverse is the case. As a rule, the terms which we have used have fairly suggested their own definitions; but in the present instance I fear that this is scarcely the case. For in the original the term idiot meant one who had not sufficient intellect to engage in political affairs or hold political office; and in these later days there is a suspicion that it has somewhat lost its significance in that regard. Ancient tests also have, to some degree, lost their value; for one of those in best repute was, to require the alleged idiot to identify his own father and mother, while more recent authority has declared one-half of that to be difficult even for a wise man.

With these idiots I can do little beyond directing your attention to the physical peculiarities which they present. I know nothing of them myself as to their histories and so forth, and but little is known at the institution from which they come. How little, may be judged from the fact that one of them is known as "Central Park"—a name probably not acquired in the usual way from his godfathers and godmothers, but rather from the locality in which he was found; while a second is called "Sloppy," in delicate allusion to a personal characteristic which is sufficiently apparent to you.

CASE I.—This is an historical idiot, who has been described and pictured in more than one medical work. At first glance, you would take him for a little boy, but he is in reality about forty years old, and has been on Randall's Island nearly twenty years. You see that he is short and stunted in figure, with disproportionately long limbs, but his remarkably small head is his most striking feature. It is about equal in size to the two fists held together, has a circumference but little over half the average measurement, and is altogether as good a specimen of the microcephalic head as you are likely to see. When you look at it in profile, you see what a decided departure from the usual proportion of the length of the face to that of the entire skull there is. Here the face is of less than ordinary length, but the forehead and the top and back of the skull are so flattened and reduced that it appears to be of unusual length. This disproportion you find in the other cases also, but in less marked degree.

As to this man's parentage we are uninformed, and we are therefore left to conjecture as to the probable cause of his condition. The bones of his skull have the appearance of unusual firmness and thickness, and the sutures are firmly knit. It may be that their

premature ossification, and the failure of expansion of the calvarium exerted pressure upon the brain, and so prevented its growth. This is one of the assignable causes of idiocy and imbecility; others are heredity, and especially where there is blood relationship between the parents; intemperance or diseases in the parents (syphilis being particularly operative), and ante-natal impressions—fright to the mother during pregnancy, and the like. In the case of consanguinity of parents, there must, of course, be family defect, which becomes intensified by the breeding-in. That there is danger where no such defect exists is not proven, and not probable; of the potency of ante-natal impressions there is no decisive evidence. Diseases and intemperance of parents are, no doubt, the most usual causes in which they are concerned.

The amount of intellect possessed by this man is almost nil. I believe the repetition of the word "tobacco" forms the extent of his conversational powers. So you will fail to get many mental evidences of his condition. But of physical irregularities there is no lack either in him or in his companions. In almost every feature, one or another of them shows some departure from the usual, and you will observe that in these departures the tendency is toward the form of the lower animals—a point of interest to believers in the Darwinian theory. If we could remove their skull-caps and look at their brains, we should, no doubt, find them approaching that of the ape in organization. The convolutions would be simple and few in number, and those of the two sides symmetrical.

Externally the mouth and lips show unusual conditions, and so with the oral cavity. The lips are large and thick; hare-lip is common; and cleft palate often goes with it. The upper jaw is lengthened and narrowed, the roof of the mouth arched, and the teeth are irregular, deficient, and decayed. Often the incisors are pushed forward and detached from the others—markedly resembling their arrangement upon a separate bone, as in animals.

Defects in the eyes and their appendages are common. This man, as you see, is almost blind, and two of the others have strabismus.

The bodies, as a rule, are ill-developed. Some have club-feet, some hunchback, and so on. Here is a negro whose feet look as if they were formed to clutch the limb of a tree, and it does not require a great stretch of the imagination to picture his ancestors in no very remote generation, jumping or swinging from limb to limb of some African forest.

And with this return, if we may call it so, toward the appearance and form of other animals, there is an equally perceptible return in habit and action. The place of intellect seems to be supplied by instinct, and by it the behavior is apparently often governed. Thus, in a recorded case, an idiot girl having, while alone and unattended, given birth to a child, turned with the instinct of an animal and gnawed the umbilical cord. Commonly, there is a consistent imitation of the habits of some one animal, and its posture and movements will be assumed, and its habits copied even to the extent of showing a preference for whatever forms its natural food. I have read of a case where a woman lived and acted like a sheep, and ate grass; and I know of a case where a young man has all the habits, and a good deal of the appearance, of a well-conducted horse. He harnesses himself to a wagon every morning and trots about all day, switching a tail which he has fabricated out

of old rope; and so great is his consistency that he never fails to shy at sight of a wheelbarrow.

CASE II.—Here is an equally good specimen of the opposite condition, the macrocephalic. This boy's head is almost as big as his body, and is at least four times larger than the average. In appearance he is infantile, and in conduct, too; but I learn from the card sent with him that he is eighteen years old. Beyond this, we have no information. His head is so large and heavy that it falls upon his shoulder, unless supported. The sutures are unclosed—indeed widely separated; and there is fluctuation, which shows that the condition is not due entirely, if at all, to abnormal size of brain. The proportions observed in profile between the measurements of the face and skull are the reverse of those found in the last case; the face is now but a small proportion of the entire length.

CASE III.—Here is a young man who will give you a good idea of what constitutes an imbecile. There is nothing stunted about him, for he is very tall; but he is awkward and shuffling, and acts like an overgrown boy who hasn't learned what to do with his limbs yet. He has that general appearance, too; and when he speaks it is in a shrill treble, though his age is thirty-five. His face is smooth; there is no hair upon the nates; his sexual organs are infantile in size, and the testes are atrophied. He has some intelligence, but not a great deal; and his answers to questions are silly and incoherent. He has hare-lip, as you see, and the condition of the teeth of which I have spoken. When out of doors he runs about like a child; laughs and cries by turns with little or no cause; and he is very fond of chewing grass or leaves, or anything, even earth sometimes, that he can pick up.

Like other imbeciles, he was probably born with as good a brain as other children, and the arrest of development came afterward, and he has remained just what he was mentally when it came. Sometimes imbeciles are born unusually bright children, and go through the first years of life without any suspicion or apprehension of any defect; but finally the stopping-place is reached, and their companions pass them, and thereafter, to whatever age they may attain, they remain mentally undeveloped. Often, by way of compensation, some one talent or aptitude is possessed in an unusual degree. Blind Tom is a familiar instance of this in the case of musical talent, but more commonly mechanical pursuits are those for which the greater fitness is shown. A proper recognition of this fact, instead of obstinate endeavor to push weak-minded children on in studies for which they have not the requisite amount of intellect, would make the lives of many of them more comfortable and useful.

MEMPHIS.—The committee appointed to make a sanitary inspection of Memphis has made its report, concluding it with a number of recommendations. Amongst these is the advice to have all the houses in the city ventilated and chilled; to condemn and destroy a certain number of infected dwellings; to introduce a system of sewerage; to secure the enforcement of building regulations for all future constructions.

The report says that few places have better natural advantages for drainage than Memphis.

The work of inspection was under the direction of a special committee composed of Drs. J. S. Billings and R. W. Mitchell; Mr. W. H. H. Bengard, Geo. E. Waring, Jr., and Dr. C. F. Folsom.

A CLINICAL LECTURE

ON A

CASE OF APOPLEXY, WITH A POST-MORTEM EXAMINATION.

DELIVERED AT THE PENNSYLVANIA HOSPITAL,

By J. M. DA COSTA, M.D.,

PROFESSOR OF MEDICINE AND OF CLINICAL MEDICINE IN JEFFERSON MEDICAL COLLEGE.

(Reported for THE MEDICAL RECORD.)

AIDED by Dr. Morris Longstreth, the pathologist to the hospital, I desire to show you the results of a very interesting and instructive *post-mortem examination*. I had hoped, indeed, to bring before you the man himself, but it was decreed otherwise. He died last night.

The case was one of overwhelming, fresh apoplexy. The patient had only been in the hospital two days. He had the very best and most energetic treatment that we could give him, but it was of no avail. The pressure of the clot upon the brain substance was too great for any human power to prevent or modify.

This is the man's history, so far as it was given to us: J. G., æt. 66, a cabinetmaker by trade, married. His mother had died of apoplexy, but the patient himself had had no previous attack of convulsions and no palsy, and had always been a very temperate man. He had, however, had considerable domestic trouble, and all the time it had been going on he had worked hard at his trade, so as to make both ends meet. The worry and work combined to depress him. This is all that they told us when they carried him into the wards unconscious, and it was, at best, a negative history; for, according to it, he had always enjoyed good health, were it not for an occasional attack of vertigo. Six months before we saw him his wife left him, and since that unfortunate event he has remained hard at work, alone, morose, and despondent, in his shop. On the day before his admission, that is on November 5th, he was found lying on the floor by his stove, which was red-hot. He had evidently struck his head, which was badly burnt, against it in the act of falling.

When found he was comatose, and his breathing was noisy. His head, face, and neck were deeply congested; his pupils were contracted, and his mouth was drawn toward the right side of his face. There was also left-sided hemiplegia. This was plainly present even when he was found. They brought him into the hospital still insensible, with pupils still contracted and with left-sided paralysis still marked.

The treatment before admission had consisted in the application of wet cups to the left side of the neck. This had so far rallied him that, after he was put to bed in the wards, he raised his right hand to his head and mumbled something about headache. There was considerable cephalic congestion even then existing; the veins of the neck and forehead were prominent and tortuous; the face was dark. The case looked like one of venous congestion. The pupils remained contracted, and responded but slowly to light; there was ptosis of the left eyelid. The mouth was still drawn to the right, and the left arm anæsthetic; at least he did not seem to be sensible to pricking it with a pin. There was complete paralysis of the left arm. (I am now giving you the results of the very careful examination which I myself made when I first saw him.) The left leg could

be very slightly moved. The reflex contractions on both sides were active when the soles of the feet were tickled. The muscles on the left side responded to the faradic current. The pulse was 100°; respirations 20 to the minute; temperature 98°. The first sound of the heart was very feeble.

The man remained in this condition; not, however, without active efforts on our part to rouse him. Eight ounces more of blood were taken from his head by leeches, with this end in view, but still there was no change for the better. His temperature gradually rose to 101°, and delirium set in. He began to pick at the bed-clothes. He was thoroughly purged with croton oil, and iodide of potassium was given in large doses. A blister was applied to the nape of his neck, and the fluid extract of digitalis was given hypodermically; but it was all of no avail. It was but too evident to us all that the intra-cranial pressure was too great to be compatible with recovery. The poor fellow died at 9.30 p. m. on November 7th. All that day the resident physician noticed his breath coming shorter and shorter. Delirium was active all the while. Occasionally he moved the paralyzed leg, and the right arm and leg were moved freely.

Here are the specimens, and my friend, Dr. Longstreth, will explain to you the very interesting pathological conditions present.

(Dr. LONGSTRETH—"You notice here, gentlemen, an enormous fresh clot which has broken into the brain substance at the anterior part and right side of the corpus striatum. The softening, following the formation of the clot, has opened a way into the ventricle and emptied the blood into the anterior horn. All the ventricles, in fact, are filled with bloody serum, and all the vessels are deeply congested. The coloring matter has escaped from the blood and colored the serum.

"Looking carefully at the base of the brain, to determine the cause of the apoplexy, all the vessels—the vertebral, carotids, and interior cerebral arteries—were all found to be atheromatous. I have no doubt that the microscope would show that all the capillaries round the clot had undergone fatty degeneration. (This was subsequently proved to be the case.) There is very marked softening of the brain in the immediate neighborhood of the clot, but there is no absolute change discoverable in distant parts of the brain substance—i. e., the softening is only local, and not general.

"The clot itself reaches from the front part of the corpus striatum, two-thirds of the way back, through the optic thalamus, and follows the course of the upper layer of the fibres of the right crus. The cavity itself, formed by the clot, is probably large enough to hold a hen's egg.

"The heart is fatty, and shows atheromatous changes in its valves, mitral and aortic—not enough, however, to interfere with the functions of the organ.

"The liver is indurated; the kidneys slightly granular, but not otherwise diseased. There is no albumen to be discovered in the urine. The lungs are soft and congested. The blood is in a bad condition all over the body. The congestion is most marked on the left depalped side."

You have thus heard and seen, gentlemen, all that Dr. Longstreth has to show and tell you. If you will examine the specimens yourselves after the lecture you will see the large clot and the general breaking down of the tissues.

There has been a very striking correspondence between the anatomical lesions and the symptoms

manifest during life. It was very evident to us, during life, that we were dealing with a large clot. This was proved to us (1) by the overwhelming character of the stroke; (2) by the completeness of the paralysis; (3) by the very marked and equally persistent contraction of the pupils; and (4) by the want of successful action of the remedies employed; in other words, by the obstinate continuance of the pressure symptoms, in spite of all and any treatment that experience and theory could dictate. It was not hard, I say, to decide that it was a clot with which we were dealing.

Nor, on the other hand, was it beyond our power to decide where the clot had been thrown out. The existence of such complete motor paralysis of the left side of the body pointed indisputably to one of the great motor areas of the brain, presumably to the corpus striatum and to a clot tearing up everything there, and probably extending into the optic thalamus. All these facts of diagnosis were confirmed by the autopsy which has just been related to you.

Again, it was not difficult during life, judging from the character of the pulse, the tortuousness of the arteries, and the feeble first sound of the heart, to determine upon the existence of an atheromatous condition of the arteries. This very atheroma of the arteries was undoubtedly the cause of the clot. All these points were nothing else than we had foretold, and so we do not find anything in these *post-mortem* appearances to surprise us.

It is needless for us to examine the symptoms any further, particularly as my time is short; but there are several points of great interest in the case which I wish to discuss with you this morning, viz.: (1) the fact that the leg was not so completely paralyzed as the arm; (2) the depression of the temperature at first and its subsequent rise with its significance; and (3) the question of treatment.

To begin, then, I say that the fact that, while the left arm and leg were both paralyzed, the leg was less paralyzed than the arm, suggests to my mind the discussion as to whether, according to the present state of physiological science, one would not have been led to suspect a lesion of the cortical substance, rather than of the corpus striatum and optic thalamus, as was demonstrated conclusively by the *autopsy* in this case.

It is scarcely necessary to discuss this proposition minutely, namely, given a case of sudden development of hemiplegia in which the arm is more affected than the leg, or *vice versa*, does it, of necessity, prove that the particular motor ganglia supplying that arm or leg are affected, or may it be that the lesion is central, as in the present instance?

Notwithstanding the ingenious and truly scientific studies which have been pursued of late years upon the localization of cerebral functions, we are as yet unable to say with certainty whether or not a lesion, which, like the present, paralyzes an arm more than the leg on the same side, may not after all be (as it has turned out to be here) central rather than cortical.

In this regard these specimens are, without doubt, full of interest, as proving that a central lesion affecting the corpus striatum and optic thalamus may yet give rise to a hemiplegia which implicates the arm much more markedly than the leg, or the reverse, while the light thus far thrown upon the subject would seem to point unquestionably to the cortex as the theoretical seat of the lesion. It all goes to show that the differential diagnosis of lesions implicating the central motor areas is not yet scientifically complete.

As regards the treatment, although you did not see the case during life, you, no doubt, remember that we cupped and leeches the patient, and purged him thoroughly, with but little success. When the heart began to flag, the fluid extract of digitalis was injected hypodermically, without any permanent effect. There was not even so much as a temporary improvement. Even in the case of the digitalis, which elicits a response from the heart in every instance in which the heart is capable of responding, the results were entirely nugatory, and so, I fear, they always will be when the clot thrown out is so extensive. We could not have treated the patient otherwise or with any better effect than we did.

My rule in all cases of apoplexy is to draw blood at once; but when there is marked degeneration of the walls of the arteries, such as we find here, I have never had any striking results from this withdrawal of the pressure upon the brain. On the contrary, where the patient's circulatory system has been weakened from general atheroma, my experience has invariably been that he soon dies, either from exhaustion, or from a fresh breakage of the wall of some artery in the brain.

In concluding my remarks upon this very interesting case, I want to call your attention to the use of digitalis hypodermically for the purpose of sustaining a flagging heart. Two drops of the fluid extract are equivalent in strength to fifteen minims of the tincture. This amount (gtt. ij.), well diluted with water, is what I generally use, and I have always found that it answers all the purposes of hypodermic medication excellently. This dose can, of course, be repeated as often as necessary.

The patient's temperature record was a very significant one. The low temperature during the early part of the attack, and its subsequent rapid rise, indicated the existence of an irritative fever set up in the brain by the presence of the clot.

TARSAL OSTEITIS—EXCISION vs. EVIDEMENT.

By PROF. W. W. DAWSON, M.D.,

OHIO MEDICAL COLLEGE, CINCINNATI, OHIO.

THIS, gentlemen, is a case of osteitis, but for repair or recovery occupies a very unfavorable position. It involves, as you see, the tarsal region. There has been a well-defined slough of the soft parts leading down directly to the bone, and involves, from its position, I should infer, the scaphoid. The disease seems indeed to be confined to this single bone. It is osteo-periosteomedullitis, an affection of all the structures of the bone—the external crust, the cancellous portion, and the medullary matter.

When inflammation attacks a spongy bone, it is next to impossible to remove it. Nature seems to have no power to relieve bone of such structure. When, however, it attacks a long bone—a hard bone—the repair is made by an external slough, or by the destruction of the shaft. If the disease is confined to the periphery, a part of the shaft is strangulated and thrown off as a necrotic mass. Repair by granulation occurs beneath. A large portion of the bone may be lost, but it is so reinforced by new material, that the utility of the limb is not destroyed. When the whole bone is involved, and from the intensity of the inflammation it dies, then there is thrown around it a shell—a covering, a kind of shield. The bone may be completely necrosed in the interior, but this

new shell is sufficient for the weight of the body, if it be in the tibia or femur; or for prehension, if involving the humerus.

This process of destruction, repair, and compensation occurs, as I have said, in long bones; in solid or flat ones, like those of the cranium; but when osteitis involves the whole substance of a spongy bone, the action is continuously destructive, but not conservative—not tending to the restoration of the part. Inflammatory action progresses; molecular death follows proliferation; the diseased bone and new osseous deposits are thrown off in the shape of necrotic sand-osseous particles; and this process goes on month after month, year after year—an ever-open discharging fistula. This constant purulent discharge from bones leads often to degenerations of the kidneys, ending fatally.

If this should not occur, the patient is rendered more or less disabled by the influence of the ulcer, and must be subjected to the presence of an offensive discharge. The destruction of the kidneys is an evil of high grade—incomparably greater than the disability or the annoyance of an everlasting purulent discharge. Again, in cases of long standing, where the kidneys escape involvement, the system, subjected to a constant drain, grows pale and anemic, the muscles become flabby, long-continued physical effort becomes impossible.

The disease, when the result of a trauma, is usually confined to the bone or bones originally injured. Fortunately, the osteitis does not extend from contiguity, from mere contact. Synovitis in the tarsus extends from continuity of surface—the synovial membranes are so intimately connected. As a rule, this is not the case when the bone structure is involved. Be careful here to make the distinction between osteitis, the result of an injury, and that arising from a vice in the system, such as syphilis or scrofula. The one is local, confined to the damaged bone; the other constitutional, and generally more than one bone is affected; or, if one alone be affected primarily, the affection will be transferred to others in the neighborhood. A few years ago I had a case which peculiarly illustrated this principle, as well as does the case before you. A bright little girl, the child of wealthy parents, was struck on the side of the foot with some hard body.

Osteitis of the tarsal bones in front of the astragalus followed. It was impossible to dislodge it. Counter-irritation, constitutional remedies, the trephine, and drainage, were all tried, but without result. Great suffering and positive disability attended the case. I then resorted to a radical operation; one that had been recommended by a Scotch surgeon; I removed the affected locality—that is, I disarticulated at the medio-tarsal articulation, and sawed off the metatarsal bones about midway between their upper and lower extremities, then dissecting the tissues from the sole and dorsum of the foot, the whole of the diseased neighborhood was excised and the foot shortened. The metatarsal bones were divided where they are essentially long bones, having a solid shaft traversed by a medullary cavity; these, at this point, have the ability to repair, after having been wounded or divided by the saw; in this instance granulations sprung up, and in a few weeks they, with the soft parts, had completely healed. To provide for the escape of necrotic fragments, I plugged the space left, after removing the mass, with lint, and allowed the restoration to proceed slowly.

She has a good foot—not symmetrical, of course; but it is a useful foot for all purposes. She dances,

runs, plays; and you would not be aware, if you were not told, from the movements of the child, that a surgical operation had been performed; it was a wonderful triumph.

I now present to you a lady with disease both of the scaphoid and also of the tibia. In the first it is osteitis; it has advanced to the stage of ulceration—molecular destruction—but the disease over the tibia involves only its covering that is thickened, enlarged, but has not reached the development of pus. It is a profitable opportunity to see the two forms, or rather the two stages of bone disease. In the scaphoid it has progressed until all the structures of the bone, as in the first case, are involved, and the destructive process still continues in the other locality; the covering of the bone is alone affected. The osteitis in the scaphoid seems to be local, confined to that bone, but the appearance of disease in the tibia leads us to suspect a dyscrasia—a constitutional affection.

Again, the fact stated by her physician, Dr. Albers—the marked influence of iodide of potassium over the affection—goes far to make the suspicion a certainty, that the disease may be specific. This fact excludes this person from the advantages to be derived from excision; that operation being alone suited to cases of traumatic osteitis, to an essentially local affection, to a disease with positive limits.

In the two cases associated—the child that had been operated on, and the female first presented—the local nature of the disease was without doubt. In the adult but one bone has been invaded, and in the child it was definite that the affection did not involve the bones behind the medio-tarsal articulation; there was in neither, constitutional or general implication of the system; hence, in the little girl, when the invaded section was excised, all trace of disability disappeared, and when the degenerated scaphoid is removed from this lady's foot she may expect a like result.

Some years ago Sedillot suggested the plan of *évidement*—the scooping-out of the interior of soft bones in cases of osteitis. He endeavored to leave the solid, thin exterior of the bone, with its periosteum, hoping for a reconstruction of the destroyed, broken-down bone. The osteogenetic process in the foot is slow and often unsatisfactory; in most instances I prefer excision.

For the relief of the second patient, surgery is almost impotent. The disease of the scaphoid is doubtless shared by the bones in its neighborhood, and we have already seen that the periosteum of the tibia is implicated; this will soon be transferred to the bone which it covers. Operative surgery, except to remove the *débris*—the products of inflammatory action in the shape of sloughs, or necrotic masses—is “meddlesome surgery;” it adds new life and gives activity to the disease which is slowly advancing.

There is, however, one remedy which exercises a marked influence over this form of bone disease. I allude to iodide of potassium. The drug, when given in from thirty to one hundred grain doses, three times a day, will be followed by striking results.

MEASLES IN NEW YORK.—Cases of measles have been increasing in frequency in this city during the past few weeks. From November 29th to December 6th, there were 126 cases reported; in the following week there were 171 cases. The disease prevails especially in the middle and western part of the city, and in some localities is quite malignant. In the week ending December 13th, there were twelve deaths reported.

Original Communications.

A CASE OF SUPPURATIVE PERITONITIS FOLLOW- ING PELVIC PERITONITIS.*

By H. T. HANKS, M.D.,

NEW YORK.

On the 29th of July, 1879, I was requested by Col. M—, of Vermont, to see his daughter, a school-girl of fifteen years, who had been ill and confined to her bed since the early part of the previous April—nearly four months. From my friend, the colonel, I learned that his daughter had been under the care of Dr. M—, the village physician; that she was taken sick with symptoms, as the physician and the father supposed, of peritonitis. The disease, apparently, seemed to progress, until the whole abdomen was involved, and had so remained for several weeks. Then the swelling subsided, the pain diminished sufficiently to enable the patient to bear some slight pressure upon the abdomen. Her desire for food increased, her mind became clear, and both the physician and the colonel believed the crisis passed and convalescence begun. The father, who was exceedingly intelligent, watched his beloved daughter with untiring devotion. He noticed, after a short time, that the girl's lower limbs remained partially flexed, and that she was growing thinner and paler, notwithstanding the fact that food and stimulants were freely taken. A council of the neighboring physicians was called in May. In June, no improvement having taken place, Prof. C. and Dr. —, of Burlington, Vt., were summoned. The plan of treatment decided upon at these several consultations had been carefully carried out, but without favorable result. I should say here that I learned at this time that the daughter had been a constant attendant at school, an earnest, diligent student, and had led her class, which was large, and many of whom were very bright pupils. Also, that just before her illness, the family had moved into their new house, hardly dry from fresh plaster and recent paint, and that this circumstance might have been unfavorable at first.

The colonel's history of the case was confirmed by the physician in charge, who also stated that the girl had never menstruated; that the disease seemed to commence in the region of the right ovary; that it was ushered in, in the usual manner; that it had quickly spread until the whole abdomen was involved; that with opium, in different varieties, and local applications, the disease seemed to subside, after a somewhat *lengthy* course; but that tenderness over the abdomen had never entirely disappeared. He stated that there had been a rapid, feeble pulse (110 to 120) for the last two months; that the temperature had ranged from 100° to 101°; that the appetite had improved, but that digestion had not been good, and assimilation was very imperfect. She had also vomited daily for the last two weeks previous to my visit, and that emaciation had continued. No distinct chill since first attack was ever noted by the attending physician, though she *may* have had a slight one. The physicians had all recommended tonics of different kinds, with stimulants and judi-

* Read before the Obstetric Section of the New York Academy of Medicine, Nov. 26, 1879.

cious diet. Prof. C. and Dr. —, of Burlington, had given a favorable prognosis, *provided* mesenteric consumption had not already begun.

At 9 A.M. on the 29th July, on coming into the presence of the patient, I found a young girl, apparently about fifteen, small for her age, with a bright, intelligent face, very pale, much emaciated, lying upon her back on the bed, with her thighs semi-flexed upon the body and legs semi-flexed upon the thighs; the voice was clear; she complained of inability to move her body or lower limbs, and of pain from any slight pressure upon the abdomen; could not allow her limbs to be straightened. She had no pain when left undisturbed, but even a *slight* jar of body, when being moved, occasioned great pain. Pulse was wiry, 120; temperature, 101°; respiration, 30°. Tongue slightly coated on the edges, and red in the centre. On gentle percussion, the parts being *exceedingly* sensitive, dulness was found to exist in region of right lower lung, in front. On auscultation, no healthy vesicular murmur was found in this immediate vicinity, but coarse, mucous râles existed in larger bronchial tubes. The mammae were as undeveloped as in a girl at ten years. The abdomen was flat, and muscular walls drawn tense, somewhat fuller than would be expected after so long an illness, which did not involve this region. There was no swelling, tumefaction, fluctuation, softening, or change of normal color anywhere discovered. The parts, however, being so exquisitely sensitive, an *absolutely thorough* and *deep* pressure examination was not made. By exercising great care in percussion, I was able to make out an increased area of dulness in right hypochondriac region, extending downward toward, and including right iliac region. The most sensitive spot seemed to be near the lower border of the liver. On auscultating the abdomen, the usual sound of the passage of air through the colon was less distinct than normal in this region, and in fact all parts of the lower abdomen; the mons veneris was destitute of hair; a vaginal or rectal examination was not insisted upon, believing that little could be learned in this case from either, since the patient was a small, delicate, and justly modest girl—and the symptom of the presence of pelvic cellulitis and peritonitis still existing in the drawing up of the limbs, the occasional distress and pain in the pelvis, especially in efforts at urinating and defecation, and the tense, painful condition of abdomen. The kidneys had been active, and nothing abnormal was found in the urine. The bowels moved two and three times a day of late. In the fecal matter, much undigested food was discovered. The patient had vomited the night before my visit, and, in fact, had vomited once or twice each day for a week. The food had been vomited soon after entering the stomach.

From these symptoms, as said above, I concluded that the patient had had a sharp attack of pelvic peritonitis, which had not even now fully resolved; that this condition had extended until there was general peritonitis, which still existed in more or less of a chronic state, and that within a short time a localized pneumonia had developed in the region of lower lobe of right lung. My prognosis was not hopeful; still, on my second visit, I expressed my belief that she might recover.

I advised a continuance of hypophosphites and stimulants in regular and moderate quantities; elix. iron, pepsin, and Peruvian bark, with regular and frequent use of a small quantity of milk and lime-water, with a little lamb chop or beefsteak, toast or rice. I ordered the abdomen in region of the liver, chest,

and lung of right side to be painted over with iodine faithfully once a day, with friction and massage to skin and muscles. I believe these recommendations were faithfully carried out.

I saw the patient again two days afterward (July 31st). Some symptoms were more favorable. Digestion better; had not vomited since previous visit; pulse, 115; temperature, 100½°; respiration, 24; limbs still flexed; abdomen still quite sensitive; appetite better; craves greater variety of food than she has been allowed; dulness over right lower lung certainly less marked; fewer mucous râles; no cough. From this time until the 9th of August there was but slight change. Digestion was better, and the respirations less frequent; but the patient grew more emaciated. (Edema of the lower limbs manifested itself, and slowly extended upward. The fever seemed to increase every afternoon, and the temperature in the mouth would range from 101° to 103½° or more. The tenderness of the abdomen was so great, that a *thorough* examination by percussion and auscultation was at no time feasible. I was certain, however, that there was still an increased area of dulness over and below the right hypochondriac region. I expressed an opinion that there was an abscess of the liver, or at least near this organ. The patient was so feeble, and the prognosis so unfavorable, that both Dr. M. and myself feared the patient might not survive the exploration, and consequently the crucial test of the aspirating-needle was not made.

The following Wednesday (August 13th) the conditions had grown worse, and a sweetish odor to the breath was distinctly perceptible. Even then, for the same reason as before, the needle was not used. On the 17th the patient died.

On Monday, August 18th, an autopsy was held, at which Dr. M., Dr. D., and myself were present. The lungs and heart were found to be normal, except that there were traces of recent inflammation in the lower lobe of the right lung, and hypostatic congestion in posterior portion of both.

On opening abdomen, the stomach was found somewhat distended with gas, the liver enlarged, and its lower border, to the extent of nearly two inches, was embraced by the walls of an abscess which extended downward to the region of and involved right broad ligament. The front wall of the abscess was the peritoneum; the posterior, or floor of the abscess, was plastic lymph, which had completely agglutinated and covered the front of the intestines. The abscess extended inward to within two inches of the median line, and was about five inches long by three in width, and contained nearly a quart of pus. It was impossible to determine at what point the abscess began; but from the fact of its involving the right broad ligament, we may judge that here around the ovary was undoubtedly the *fons et origo* of the inflammation.

The pelvic organs showed evidence of recent inflammation; but neither these nor the intestines were carefully examined, since the evidence of the cause of all the symptoms had been clearly made out.

Remarks.—Here was a case of pelvic peritonitis extending into general peritonitis, and finally suppurative peritonitis of right side of abdomen.

On my first visit the symptoms were distinctly pathognomonic of peritonitis and pelvic cellulitis and slight pneumonia. The latter trouble improved; the symptoms of the second—pelvic peritonitis or cellulitis—viz., great tenderness in this region and the flexion of the thighs on the body, did not improve; and the evidence of general peritonitis of a chronic character remained.

† The *tense* condition of the abdominal walls which I noticed at each visit, I believed to be due to the inflammation which had not fully subsided. Later, when a deposit of pus was believed to be present somewhere in the abdominal cavity, there being no pointing and no tumefaction, the searching for it with an aspirating-needle seemed no small undertaking, with so feeble a patient.

The lesson which I learned, and which in this somewhat detailed recital—and since so little is found in our text books and medical journals—I wish to teach, is this: when a patient has a peritonitis which is followed by a tedious and apparently unnecessarily lengthy convalescence, with an abdomen so sensitive to touch as to preclude a thorough examination, I should advise the administration of ether to relax the muscles as well as to produce less sensibility, and an examination by percussion and the hypodermic needle. Should pus be present, it should be drawn off with the needle or by free incision, as may seem most judicious at the time.

45 EAST THIRTIETH STREET.

Reports of Hospitals.

THE SURGICAL CLINIC AT JEFFERSON MEDICAL COLLEGE HOSPITAL,

HELD BY SAMUEL D. GROSS, M.D., LL.D., D.C.L.,
OXON.,

PROFESSOR OF SURGERY.

(Reported for THE MEDICAL RECORD.)

- I. MYELOID SARCOMA OF THE HEAD OF THE HUMERUS.
- II. ERYSIPELAS INVOLVING THE SKIN AND THE SUBCUTANEOUS CONNECTIVE TISSUE.
- III. PARAPHIMOSIS AND ITS TREATMENT.
- IV. NECROSIS OF THE NASAL SEPTUM INVOLVING THE TURBINATED, AND THE PALATINE PROCESS OF THE SUPERIOR MAXILLARY, BONE.
- V. ABSCESS IN THE LEG, FOLLOWED BY THE FORMATION OF A SINUS.

THIS woman has been brought to the clinic by a medical friend from New Jersey, who wishes me to examine the case and advise with her parents regarding the propriety of an operation. You see at once that there is a large tumor situated on the superior extremity of the left humerus, and implicating a portion of the bone in the disease. The crepitation which I elicit by movement proves the existence of a fracture of the humerus at the lower part of the tumor. There is considerable swelling, but no discoloration of the integument. The pain is but trifling. The history shows that the patient fell on the ice last January, striking her left shoulder. The physician who was called in diagnosed the case to be one of fracture of the upper third of the humerus; but merely ordered the parts to be bathed with lead-water and laudanum.

There is considerable heat over the seat of the tumor. The patient states that her general health has been very good. She usually sleeps well at night, but occasionally she is wakeful, rendered so by pain in the growth. Her age is twenty-three years.

I need scarcely tell you that the growth is a sarcoma, commencing in the medullary structure of the head of the humerus, and terminating probably in the bone at the point of the fracture. There is, of course,

nothing to be done but to remove the limb at the shoulder-joint. Excision would be of no use. It is for the patient to determine whether or not the amputation shall be performed.

ERYSIPELAS INVOLVING THE SKIN AND THE SUBCUTANEOUS CONNECTIVE TISSUE.

This patient has been suffering for some time from a chronic trouble in his left knee-joint, for which I treated him some two weeks ago by an application of the actual cautery. You notice these large eschars on each side of the patella. The effects of the cauterization upon the joint trouble were most palpable and immediate; but, unfortunately, just when we thought he was on the fair road to recovery, an erysipelatous inflammation set in, attacking the left leg and the upper part of the left thigh, together with the right groin.

The inflammatory action is, as you see, entirely superficial, involving only the skin and superficial connective tissue. It is a very curious fact, but one which is very often noticed, that the erysipelas, instead of making its appearance near the seat of the disease or injury, occurs, perhaps, at a remote part of the body as on the trunk, abdomen, or superior extremities, when the injury is situated upon one of the legs.

A man cannot have erysipelas if his constitution is in good condition; cannot have it unless he has been exposed to some malarial influence, or has suffered from a poisoned condition of the system, or from a disordered digestion.

I regard erysipelas, of course, as a local manifestation of a constitutional vice. Such being the case, we must make use of constitutional as well as of local remedies. I have, in the present case, been employing quinia and the tincture of the chloride of iron. Locally I have ordered the resident surgeon to apply a solution of acetate of lead, which is better than either simple warm or cold water, or water medicated with any other substance. The solution which I always employ has a strength of a half-ounce of acetate of lead to the quart of water. After dipping a cloth in the solution and applying it to the parts, the dressing should be covered with a piece of waxed paper or of oiled silk.

After treating the local inflammation, it is necessary to keep an eye on the secretions; and when the saliva is scanty, the tongue coated, and the digestion more or less impaired, I order a few grains of calomel, to be followed in the course of six or eight hours by a small dose of castor oil. I prefer the oil to the Epsom and Rochelle salts. These latter drain off the serum of the blood, and so, of necessity, weaken the patient. The oil has no such effect if given in a moderate dose.

Erysipelas is a very peculiar affection. It follows a great number of diseases and operations—amputation, lithotomy, the lying-in state, etc. I have seen one case in which a leech-bite was followed by the fatal erysipelas. Indeed, the story is told of an eminent citizen of the West who lost his life from an attack of erysipelas following a *flea-bite*. In a recent case under my own care a most severe attack of erysipelas followed the operation for the removal of a small tumor from the face, and our patients are always in great danger from these attacks, unless the greatest care is exercised over the case and the proper treatment instituted at an early date.

There are several varieties of erysipelas: 1st, that involving the skin and subcutaneous connective tissue alone, of which the present case is a good illustration; 2d, the so-called *phlegmonous* variety, in which

the skin and subcutaneous tissues, muscles, and deep-seated structures—down to the very bone itself—are involved. In this variety the swelling is often enormous. Suppuration takes place, and there is a universal infiltration of the tissues with pus, which is diffused extensively in all directions—almost dissecting out the parts, as it were, with a knife—and not at all circumscribed; 3d, the *oedematous* variety, which is most liable to appear upon the face and on the male and female genital organs. It is accompanied by an effusion of serum, together with a small quantity of plasma. The oedematous form of erysipelas is generally a very mild one, occurring mostly in old persons and in those whose systems are worn out from disease or exposure, or both.

Erysipelas is a result of blood-poisoning, and is therefore frequently a very grave disease, liable to terminate fatally, unless very carefully managed.

As regards treatment, as I have already told you, the best local application is a strong solution of the acetate of lead. Tincture of iodine diluted with an equal quantity of alcohol is also a valuable remedy; while in the milder forms of the disease zinc ointment occasionally answered good purpose. Sometimes simple emollient remedies, such as gum arabic, or flaxseed, either alone or with acetate of lead and laudanum, are productive of great benefit.

In all cases you must pay special attention to the constitution. When the appetite is poor, the liver torpid, and the alvine evacuations irregular; when the whole body aches, or profound lassitude supervenes, mercury should be employed, taking care that it does not act too briskly. In addition to the mercury you should, for their tonic effect, give quinia and the tincture of the chloride of iron. If there is much circulatory excitement the patient should be kept under the influence of two-drop doses of the tincture of the root of aconite, given three or four times in the course of the twenty-four hours.

A change of air is always desirable. Pure oxygen is a great desideratum in this condition. The ventilation must be good and the diet nourishing.

If it is the phlegmonous variety with which you have to deal, the local treatment should be conjoined with free incisions, thus providing an outlet to the effused serum and plasma, for, otherwise, the unhealthy action may run into suppuration, and pus is always a destructive agent, and may do great harm if allowed to remain pent up; harm which it may take weeks, and even months, to remedy.

When you meet with a case of erysipelas in the wards of a hospital, the patient should at once be put in a room by himself. If the weather be hot, he had better be quartered in a tent outside of the building, where there is an abundance of fresh air and sunshine.

PARAPHIMOSIS AND ITS TREATMENT.

This young man is about eighteen years of age. On the night of Thursday, October 16th, he had impure connection. On the following Sunday, October 19th, he was first conscious of soreness and throbbing of the penis. The organ became greatly swollen and much inflamed. When seen at the outdoor clinic there was so much phimosis that the prepuce could not at first be retracted. When retraction was finally effected, on the following day, five sores were brought to light on the glans penis. These sores were at once cauterized, and the patient was told to bathe the parts frequently throughout the day with warm salt water. When the prepuce had been retracted for some hours the

glans penis began to swell greatly, and well-marked paraphimosis supervened. The only treatment of this condition thus far has been by bathing the parts with warm salt water and by position.

You will notice that, according to the history of the case, the phimosis disappeared when the foreskin could be drawn back, and that there was a considerable amount of infiltration of serum and lymph accompanying the phimosis. No sooner was the phimosis relieved than a violent paraphimosis was set up, marked by much oedema and great enlargement of the head of the penis.

The five sores were evidently five soft chancres. In soft chancres the ulcerative action is superficial, and extends rapidly, which is by no means the case with the hard chancre, where there is but slight discharge. In only about one case out of every four is the soft chancre likely to be followed by a bubo, whereas the hard chancre is always, or nearly always, so followed. These five soft chancres are very nearly healed to-day.

The cure of paraphimosis depends, of course, upon the reduction of the prepuce to its natural condition. In cases of recent standing, such as the present one, this is a matter of but very slight difficulty. When the infiltration, however, is very great, the reduction is very difficult. What we have to do in these cases, where infiltration has progressed to a great extent, is to place the patient under the influence of an anæsthetic, so as to render him insensible, and thus prevent him from offering any resistance. The surgeon should then grasp the organ behind the retracted prepuce, gradually force the blood out of the head of the penis, and press the head of the penis back while he draws the prepuce forward. This compound movement generally suffices to effect the reduction of the parts.

It has occurred to me that we might diminish the size of the head of the penis in these cases by applying a narrow band of gum elastic around the part, but this is not always practicable or possible.

When the surgeon is unable to effect reduction by the compound movement referred to above, he must proceed at once to make an incision through the stricture formed by the prepuce, with a bistoury. In all cases where the infiltration is great, incisions must be made into the parts inundated, in order to allow the serum to drain off. The penis, when paraphimosis exists, should never be allowed to hang down, but must be so placed as to point toward the umbilicus. If the swelling do not yield to the solution—acetate of lead—which we are using in the present case, we shall apply mercurial ointment as an absorbent, before attempting any operative measures.

NECROSIS OF THE NASAL SEPTUM INVOLVING THE TURBINATED, AND THE PALATINE PROCESS OF THE SUPERIOR MAXILLARY, BONE.

This woman is thirty-nine years of age. Eight years ago she began to suffer from nasal catarrh, which has persisted ever since. For the last two years the discharge has been very offensive, and has frequently contained fragments of diseased bone. Examination of the roof of the woman's mouth reveals extensive ulceration there. There is evidently necrosis of the nasal septum and turbinated bone, involving the palatine process of the superior maxillary bone. By means of a speculum, designed for the examination of the nose and anterior nares, I can plainly see the seat of necrosis, and upon introducing this polyp-forceps I come at once in contact with a piece of dead bone, which I shall im-

mediately proceed to remove. It is an exceedingly bloody and painful operation, but the woman bears it very bravely. I think that I have now succeeded in getting all the sequestra away. If the bleeding becomes unmanageable at any time, or if secondary hemorrhage should chance to ensue, the resident surgeon will have to plug the nares.

ABSCESS IN THE LEG, FOLLOWED BY THE FORMATION OF A LONG SINUS.

The abscess was not properly attended to in this case, and it has been followed by a sinus. I dwelt at considerable length at my last lecture on phlegmonous abscesses; and referred to the fact that sinuses often follow them.

This sinus has existed since the 26th of last July. There has been a large and constant discharge of pus from it. There are no healthy granulations, either within or around the opening of the sinus. The granulations which can be seen have not the elevated appearance indicative of robust, but on the contrary, present all the characteristics of unhealthy, action. There is a great deal of redness in the adjacent tissues. When I press upon the parts, they become blanched, but the blood returns to the surface the moment that the pressure is withdrawn.

The man is thin; his tongue is coated, and his digestion is poor. I find, upon inserting a probe, that the sinus extends up the limb toward the knee, a distance of nearly three inches and three-quarters.

How is the case to be treated? I have told you upon numerous occasions that the best plan is to lay a sinus freely open throughout its whole extent, and so allow it to heal from the bottom. Some authorities have suggested the injection of caustic or astringent solutions, and advised the subsequent employment of systematic compression; but none of these remedies are of much permanent account. We might insert a seton, but I never did approve of this nasty, filthy alternative.

It is always necessary to scrape the unhealthy granulations away throughout the whole extent of a sinus, and at the same time the undermined skin should be dissected from the aponeurosis for a considerable distance, so that healthy granulations may spring up. The sides of the sinus should then be brought together and a roller applied; a few adhesive strips are also needed so as to effect slight approximation.

You see here exemplified the bad effects of an accumulation of pus, all of which might have been avoided by a free and early incision, as is my invariable rule in all such cases.

Progress of Medical Science.

DIABETES DEPENDENT UPON LESION OF THE PANCREAS.—In 1879, M. Lancereaux described a form of diabetes which had its origin in lesions of the pancreas. Since then, his pupil, M. Lapiere, has made a special study of this question, and given a valuable addition to its literature. The disease is marked by its sudden onset, and, from its inception, it is manifested by grave intestinal troubles, rapidly followed by polydipsia, polyphagia, polyuria, and glycosuria. In a few months the patient becomes greatly emaciated, he loses successively his physical, intellectual, and virile powers, sinks gradually into a state of exhaustion, and finally presents the symptoms of pul-

monary phthisis. The total duration of the disease varies from six months to three years, the average being about twenty months. In addition to the general treatment indicated in all forms of diabetes, we have in these cases to attack the primary lesion. Unfortunately our efforts in this direction are of but little avail, being confined to endeavors to supply the function of the pancreatic juice by increasing the action of the auxiliary organs and by the artificial digestion of the food.—*Gazette des Hôpitaux*, Oct. 18, 1879.

SPONTANEOUS DISAPPEARANCE OF LYMPHADENOMATOUS TUMORS.—At a meeting of the London Pathological Society, Dr. Coats, of Glasgow, related the case of a man who, when first under the surgeon's care, had had a number of small tumors in the abdominal walls. These, for the most part, disappeared, but others in time took their place. In about ten months as many as thirty-four were present; the man then became much worse, and finally died from vomiting and exhaustion. Post-mortem examination showed numerous tumors not only in the subcutaneous connective tissue, but also in the connective tissue of the abdomen, in the mesentery, and about the kidney. These tumors were found to be of lymphoid character.

The history of this case, which appeared to be unique, brought out the fact that similar ones had been observed, and that the occurrence of unstable lymphadenomatous growths was not so very rare. One has been reported by Dr. Dühring in this country under the head of "Inflammatory Neoplasm." Hebra has observed a case, and Sir James Paget and other members of the Society reported several. Such cases have sometimes been mistaken for cancer.

In their treatment, remarkably good results have been obtained from liquor arsenicalis and iodide of potassium.—*Med. Times and Gazette*, May 17, 1879.

HYSTERIA IN BOYS.—Dr. William Roberts contributes the history of several cases of hysteria in boys to the November number of *The Practitioner*. In prefacing these histories he mentions similar cases reported by other observers, but under different names; there being an unwillingness to apply the term hysteria to males.

The first case was that of a boy of thirteen. After some trifling ailment, he began to be hypochondriacal and low spirited. Eight months later he was attacked with a cough which soon changed into a true hysterical bark, and then into a kind of bleating noise. He kept this up nearly all day for several months; he then went through the exercise only at morning and night. The symptoms continued for about fifteen months, when the boy became perfectly well. The hysterical nature of this case was well marked. The mother had been hysterical when a girl, and the brother and sister were also affected for a short time. The disease in the latter persons took the same form of bleating, and was evidently brought on by unconscious mimicry.

The second case was that of a boy of eight or nine years. The hysterical symptoms in his case came on, as is not unusual, during convalescence from acute disease. The boy became suddenly subject to attacks of loud, passionate, tearless crying, with incoherent ravings of a most alarming and distressing character. These continued for a week; they then ceased for a week, to be resumed again, though with less severity. During the intervals between the paroxysms the boy seemed perfectly well. A removal from home surroundings and sympathy, with the daily use of the galvanic current, resulted in cure.

Case number three was an exquisite example of hysterical contracture. A healthy boy of eleven, while walking to church, began to limp. By the time he reached home his left foot was contracted inward in the position of extreme talipes varus. Under chloroform the spasm relaxed, but no force or mechanical appliance could keep it in proper position. There having been no injury, fever, or pain, the case was diagnosed as hysteria; the boy was encouraged to get up and try to use his foot. This he did, and in twenty-four hours was quite well.

The fourth case was one somewhat simulating epilepsy. A healthy, well-grown boy became gradually subject to short convulsive attacks, affecting the whole body. They occurred early at night or toward morning; afterward they took place in the daytime also. He remembered nothing of the attacks himself. There was no frothing at the mouth, or biting of the tongue. The boy suffered in this way for nine months, and then gradually improved, until he became quite well.

These cases prove the existence of hysteria, of undoubted character, in boys.

THE ANATOMICAL CHANGES IN THE LYMPH-GLANDS IN TUBERCULOSIS, IN AMYLOID DEGENERATION, AND IN TUMORS.—The following are the chief points of a paper by Prof. Cornil on the pathological changes of the lymphatic glands—a subject which he regards as of especial interest, because these changes are almost exclusively secondary to the so-called diatheses or affections of other organs, and because, from their character, conclusions can be deduced concerning the nature of the primary affection:

1. In *acute adenitis suppurativa*, the sinus, the lymph channels, and the cavernous tissue of the gland are filled with pus, which is also found in the connective tissue surrounding the capsule, and in the lymphatics that are connected with the gland.

2. *Syphilitic adenitis* is characterized in the primary and secondary periods by swelling and proliferation of the nuclei of the sinus-cells, together with moderate thickening or sclerosis of the connective-tissue framework. The latter is very marked only in the so-called strumous buboes of syphilis. In the tertiary period we meet with various forms of change: the glands may be indurated, cirrhotic, sclerosed, or cheesy. A rarer form of lesion is the so-called medullary adenitis; in this the entire cavernous or follicular substance is the seat of a chronic, what may be called catarrhal inflammation, the connective-tissue framework of the gland being unaffected. Such a gland is swollen and soft, and on section looks like the brain substance; it contains a whitish, milky juice.

3. In *scrofula* the glandular lesion is the sequel of a chronic inflammation of the skin or mucous membrane in a predisposed person. The lesion consists essentially in a chronic inflammation of the connective tissue, in a fibrous thickening of the original septa, which leads secondarily to the formation of isolated foci in the reticulated substance. The caseous degeneration of these nodules is due to the impeded circulation consequent on the primary sclerosis of the connective tissue.

4. *Tuberculous lymph-glands* resemble the scrofulous only in one particular—viz., in the tendency to undergo caseous degeneration; in all other respects the two processes are entirely different. In scrofulosis the glands become very large; in tuberculosis they usually remain small. In the latter the initial process is located in the lymph-channels and the perifollicular sinus; it is a distinct inflammation,

characterized by the accumulation of numerous large cells in those parts. The scrofulous affection begins as an interstitial adenitis, as a new growth of the connective-tissue framework. In the fully developed state we find in the *tubercular* affection the characteristic tubercles—i. e., small, isolated collections of minute, closely-packed round cells, which often enclose giant-cells and readily undergo caseous degeneration, while in the *scrofulous* affection the characteristic change consists in the isolation by the newly formed connective tissue of small islands of reticulated tissue filled with large lymph-cells. When one of these islands becomes caseous, the degeneration attacks the whole of it at once and progresses slowly, while the caseification of a tubercular nodule begins in the centre and extends rapidly.

5. In *amyloid degeneration* the enlargement depends on a chronic inflammation, which is both interstitial and catarrhal. Only the vessels of the cortical layer and the cell-masses of the cavernous tissue in contact with them, become waxy.

6. With regard to *tumors* of the lymphatic glands, the author simply lays down the following axiom: they reproduce faithfully the anatomical form of the primary tumor, and are produced by direct metastasis of its elements.—*Allg. Med. Cent. Zeit.*, September 20, 1879.

"BLOODLESS METHOD" OF PERFORMING TRACHEOTOMY.—Dr. Reismann, of Haspe, Westphalia, describes an ingenious method of securing local bloodlessness in the operation of tracheotomy, which he has tried with success in one case. The incision made was only 2 ctm. ($\frac{1}{2}$ in.) in length, and carried down to the superficial fascia. The sides of the wound were then made to gape by lateral pressure with the fingers, and nine sutures were introduced with a delicate, curved needle, through the skin and the tissues covering the trachea, the point of the needle being carried as closely as possible to the trachea. The sutures were secured by single slip-knots, which were only drawn tightly enough to control temporarily the flow of blood, and the ends were given to an assistant, who, by slight traction on them, made the wound gape a little more. The operator then rapidly opened the windpipe and introduced the canula. As soon as this was fixed in place, the ligatures were loosened by simple traction on one end of the thread, and were withdrawn from the tissues. After the removal of the ligatures, there was scarcely any bleeding. If any had occurred, Dr. Reismann thinks it could have been easily controlled by pressure on the plate of the canula, and by the introduction under it of pledgets of tannin-cotton.—*Berliner klin. Wochen.*, Sept. 8, 1879.

DUPLICATING PRESCRIPTIONS.—A recent medical act in Wisconsin reads as follows: "If any physician practicing medicine in this State shall write or cause to be printed on any prescription the words 'No duplicate,' any vender of medicines who shall duplicate such a prescription without the physician's consent shall be subject to a fine of \$10 for each offence."

The *Louisville Medical News* comments as follows: "We wish this law prevailed in Louisville. Here one prescription, gotten on credit, and often never paid for, is used by an individual or a family indefinitely, and besides, is often loaned to friends and relatives. It is pleasant to know, however, that the modest and moderate-charging druggist gets his little one hundred per cent. every time the R. is filled."

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December 20, 1879.

THE MEDICAL HISTORY OF THE WAR.

THE second part of the "Medical History of the War" is before us, and is a trifling matter of eight hundred and sixty-nine quarto pages. The first part of this medical history, issued in 1875, was made up mostly of statistical tables showing the diseases and deaths from which the army had suffered. Statistics in quarto form are not an attractive kind of literature, and consequently Part One has never been a popular work. The present volume covers a very different ground, treating of the alvine fluxes. It is in every way a noteworthy book, and one with whose value the medical profession should be familiar. Dr. Woodward has made a conscientious and thorough use of the magnificent materials at his command, and there is no exaggeration in saying that he has produced the most complete and exhaustive work on a medical subject that has ever been published. The medical profession, and especially American physicians, are to be congratulated that a volume so reditable to medical science has appeared.

A partial outline of the contents will give some justification for these statements.

The alvine fluxes are treated of at great length, on account of their prominence on the sick and mortality lists of the army. Of the 171,704 deaths from disease, 57,265, or about one-third, were caused by diarrhoea or dysentery. From five to ten per cent. of the troops were always on the sick-list from the same diseases. As the war advanced the mortality increased, until it had reached the number above given; and this does not, probably, represent the whole. As the deaths from acute diarrhoea were in a proportion of 1 to 395 cases, those from acute dysentery 1 to 57 cases, and those from chronic dysentery and diarrhoea 1 to about 4 cases, the immense number of persons subject to these fluxes can be imagined.

Dr. Woodward's treatment of the subject before him is in some respects original, as it is practical and exhaustive. He divides the fluxes into: 1. Acute diarrhoea; 2. Acute dysentery; 3. Chronic diarrhoea and dysentery; and, 4. Tuberculous diarrhoea. Under each head are given a history, with bibliographical notes; the pathology and morbid anatomy, most elaborately illustrated with woodcuts, photographs, chromo-lithographs, and steel engravings; then, in addition, are the usual topics of etiology, symptoms, course, and treatment.

The divisions which include the morbid anatomy and pathology will attract the most attention. They are mines of pathological lore as far as the particular subjects investigated are concerned, and much information upon allied questions in general pathology is also given. Inflammation and tuberculosis are instances of this branching out of the work. The photographs are excellently done, the micro-photographs being of sections magnified but sixty-three diameters. In thus using only the lower powers, the comparatively small value of high-power photographs is very properly recognized. Not much that is positively new could be expected from investigations of such easily studied lesions as those of the fluxes; but the presentation of these lesions has never before been so fully made. The most important practical contributions, however, are in the assignment of clinical symptoms to their proper anatomical lesions. The too prevalent misapprehension, especially among American practitioners, that diarrhoea is located chiefly in the small intestine, is referred to. In the cases examined, the parts most extensively affected in acute diarrhoea were the cæcum and sigmoid flexure, and, next to these, the ileum.

Chronic diarrhoea and chronic dysentery are treated together, for it was found impossible to make any satisfactory clinical distinctions between them.

Under the head of tubercular diarrhoea a full account of the tubercular process is given. Dr. Woodward expresses two tolerably positive opinions with regard to this much-discussed morbid disturbance: first, that the so-called giant-cells, said to exist in the ultimate tubercle, are figures resulting from the action of reagents upon sections of lymphatic vessels stuffed with coagulated fibrin; and, second, that the development of the ultimate tubercle is determined by the formation of a small fibrin clot obstructing a small lymphatic vessel.

Acute diarrhoea and acute dysentery were found to shade into each other so gradually, that distinction on any grounds was often difficult. Clinically, however, the symptom of tenesmus is, somewhat arbitrarily, assumed to be pathognomonic of acute dysentery. Anatomically, in dysentery, the ulcerations, the diphtheritic exudation, and the lower situation of the lesion mark the character of the disease in all but the mild cases. Very often mild forms of acute catarrh

rhral dysentery are not distinguishable, anatomically, from acute diarrhoea.

Passing over the subject of etiology with the statement that the contagiousness of dysentery is not allowed to have been proved, we come to the discussion of the treatment. This covers ninety pages. The value of every drug that has ever attained reputation in the treatment of diarrhoea or dysentery, from the time of Hippocrates down, is exhaustively examined. Some of the writer's conclusions are, that ipecac has but problematical value in acute dysentery; that in the same disease, calomel, whether in large or small doses, is not a remedy to be advised. Oil of turpentine and camphor receive the slightest possible commendation. Purgatives are recommended, but not castor-oil. Sulphate of magnesia, the neutral salts, and rhubarb, are to be preferred. A small work on *materia medica* might be compiled out of this discussion upon the therapeutics of dysentery and diarrhoea. We cannot adequately comment upon it here.

We have given quite unreserved praise to this book, and such it deserves. Our Government, which has begun to gain some reputation abroad for the scientific work it has set on foot, will get in this, as in its companion volumes, credit for having done what no other nation has attempted or can attempt. This credit will be reflected upon our own profession at home, which is doing more every year to prove that Americans are capable of legitimate scientific work.

There is but one regret to express in this connection. The present work is too bulky and costly for very wide distribution. Besides this, the practical parts are so buried in voluminous details, that the whole becomes valuable almost solely for reference. It would be most desirable if a condensed work could be made in which the statistical tables, bibliography, some of the history, and all superfluous discussion should be left out. Such condensation, properly made, would have a place among the classics of medical literature. In its present form it earns the title of "The Book of Magnificent Proportions;" but one cannot lift it to the niche of those immortals on whom dust will not gather.

CHICAGO AND THE LIMITS OF SANITARY INTERFERENCE.

THE history of sanitary measures in Chicago is one which, on the whole, does the city great credit. Situated as it is, largely upon swampy ground, whose average elevation above the lake is only twelve feet, and exposed to strong winds and sudden changes of temperature, it would be natural to expect a high percentage of mortality. Through its energetic attention to sewerage, however, and through the establishment of its magnificent water-works and extensive parks, it has reduced the death-rate to eighteen per thousand, which is less than the average in large cities.

Encouraged by such results, doubtless, the Board has of late displayed an increased energy of action, which has at length raised up much opposition among the more conservative. Some time ago, red placards were ordered to be hung on the door of every house in which there was a case of scarlet fever; the Health Commissioner has been inspecting the meat markets, and has attempted to confiscate bad meat; the milk, too, has been inspected, and efforts made to limit the increase of its watery constituents; the foul odors from rendering establishments have been abolished; the public libraries have been inspected, and the possibility of contagion through circulation of the books examined into and provided for; the tenement-houses have been visited, and police authority exercised to secure the bettering of their condition; registration of births and deaths, as well as notification of the appearance of contagious diseases, are, of course, demanded of the physicians.

The discussion that has been excited by the very active manner in which all these measures have been carried out, raises some interesting questions. There is, for instance, a decided lack of definite knowledge as to where municipal sanitation should end and private effort begin. If public authority goes too far, it will excite alarm and distrust; furthermore, private organizations, as a rule, do vastly better work than public ones, and in sanitary matters it is instruction that is needed quite as much as authority. The principle, that sickness does not make a man a criminal, and that the government has no right to injure the private citizen even for the public good, without some compensation, should be in general the guide in drawing the line where sanitary interference should end. We are disposed, therefore, to take a conservative view of the question in hand. There is a tendency just now to an excessive display of sanitary efforts; and some of these, without advancing the public good, curtail the liberty of the individual, and impose especially upon the doctor. The confiscation of damaged meat, the placarding of houses in which scarlet fever exists, and the compelling physicians to report births, deaths, and infectious diseases, are among the measures whose enforcement has excited either open opposition or secret evasion.

We shall not attempt to discuss the particular merits of the first two points, as they have as yet no great significance to the most of the profession. Upon the subject of compulsory registration, however, some recent discussion and action have occurred that deserve attention.

For fifteen years the medical profession in Great Britain, appreciating the importance of the early notification of cases of infectious disease, has urged the adoption of a compulsory registration. Their efforts have been largely successful, but the compulsion has been contrary to the advice of the British Medical Association, been laid upon the doctors instead of upon

the householder in charge of the disease. At the last meeting of this Association, the committee deprecated in strong terms this arrangement of the matter, and presented a number of reasons against it. These are, briefly, that it placed the physician in the position of an informer upon the affairs of his patient; that it is unjust to add to the danger incurred by medical men in attending upon infectious diseases, the possibility of indictments and fines for not making a report which an arbitrary enactment demands of them; that such an enactment leads people to evade it by not calling in medical help; that any injury to business caused by the physician's giving notice of the disease is liable to be ascribed largely to such medical attendant; and, in case of disputed diagnosis, much trouble may result.

There is justice in these arguments, and they come from high authority. It is certainly an imposition upon the doctor to oblige him to be responsible for the notification of contagious diseases; there is no question of the injustice, morally speaking, at least, of subjecting him to heavy fines in case of failure in the imposed duty. Practically, however, the imposition does not appear to be so oppressive, and it is certainly the easiest and most convenient way of getting at the facts; the doctor would always have to help the householder make out his report, and would often have to be both his stationer and amanuensis.

While denying the justice and admitting the occasional inconveniences, therefore, of placing this obligation upon physicians, it seems unnecessary to make any special protests until the members of the profession express themselves more strongly, either against the law or in favor of compensation for being placed under it. Individual complaints should come first.

The exact limits of proper and just sanitary interference cannot yet be defined. We will have to learn them largely by practical experience, and they will always have to be of sufficient elasticity to meet the emergencies of great epidemics. Meanwhile the profession should see that the dash and *élan* of the modern sanitarian result in no unnecessary or uncalled for encroachments on the personal liberty and rights either of themselves or their patients.

MEDICAL RECEPTIONS.

THE old saw, that all work and no play helps to make the subject of that condition a dull boy, has a striking application to members of our profession. At best, our calling is an exacting and tiresome one, and its followers need something to offset a more or less continuous mental strain. We are glad to see that the old notion that the physician must be different from other men, is fast passing away. On the contrary, some of our best workers are those who seem to enjoy life the most. They are to be seen at the opera, the theatre, the concert hall, and at the fashionable receptions, with a regularity that would surprise the

man who says he never has time to do anything but strictly professional business. The secret of the whole matter is, that some amusement gives in the end a better capacity for real work, when the latter is necessary. It is a promising sign that such amusements are beginning to be common among medical men. Medical receptions are becoming quite frequent, and their enjoyable character is likely to make them still more popular. Aside from showing honor to distinguished strangers, we know of no means better calculated to edify the man medical as a social being, and to give him a closer sympathy with his medical brother, than the receptions to which we allude. On such occasions the individuals meet on the common ground of enjoyable sociability, and lose sight of mere differences of opinion in a common desire to be happy themselves, and agreeable to their companions. Already the receptions which have been recently held are beginning to bear good fruit, transforming apparent strangers into congenial associates, and in creating a better understanding with all as to the true relation which professional gentlemen should bear to each other. We have a slight suspicion that the expression, "the more the merrier," will not be considered original with us, but it is nevertheless applicable to the occasion.

SUITS OF MALPRACTICE.

THE resolutions of the Medical and Surgical Society of Baltimore, bearing upon the frequency of suits for malpractice and their prevention, are timely and in keeping with the general sentiment of the profession. When it is known that almost always the foundation for such suits is laid by an ill-advised remark of a brother practitioner, if not by open hostility on his part, the manner in which the profession can protect itself becomes quite apparent. Not only should such remarks be discouraged, but members making them should be disciplined by the societies. It is bad enough to be compelled to testify as an impartial expert, but when one becomes a willing witness against his brother, he fathoms the lowest depths of professional meanness. The way to prevent such possibilities is, as the Baltimore Society suggests, to be on the safe side by actively discouraging all such suits. No medical man can afford to raise himself at the expense of belittling his profession by attempting to prove that his rival is an ignoramus.

IMPROVEMENT OF THE BLIND.—A Society for the Improvement of the Physique of the Blind has been founded in London. Its object is to improve the physique of the adult blind, to assist the physical education of blind children, and to prevent blindness in children, as far as possible, by teaching the hygiene of the eyes. It expects to train teachers for these purposes, to introduce physical exercise into blind-asylums, and to collect information regarding the causes of blindness.—*Brit. Med. Journ.*

Reviews and Notices of Books.

THE PHYSICIAN'S HANDBOOK FOR 1880. By Wm. ELMER, M.D., and A. D. ELMER, M.D. New York: W. A. Townsend.

THIS handbook, which is now in the twenty-third year of its publication, is certainly a *mutuum in parvo*. It contains a list of the diseases which are usually met with in practice, with a brief epitome of the symptoms and treatment of each, short articles on emergencies and their treatment, on poisons, their symptoms and treatment, and on the diagnostic examination of the urine; lists of incompatibles and of antagonistic remedies; tables of weights and measures; a condensed list of remedial agents, with their preparations and doses; and an article on the art of prescribing. After all this, we have an alphabetical ledger, a daily visiting-list for the year, obstetrical and diagnostic records, and a space to enter cash received. As might be expected, the attempt to include so many things in one volume has made it rather bulky for pocket use. The book is published in the usual style of a visiting-list; it contains 314 pages.

TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. Vol. III., pp. 335. Wood & Co. 1879.

THE contents of this third volume consist of reports of three hundred and thirty-six cases and specimens presented during the year 1875, with a supplement of numerous similar cases selected from the archives from the year 1844. There are three classes of subjects: diseases of the organs of digestion, continued from Vol. II.; diseases of the genito-urinary tract; and observations in one hundred cases of cancer. In each department the collection indicates careful pathological research. The diseases of the liver, of which there are seventy-one cases; of the gall-bladder, ducts, etc., thirty cases; and of the spleen, thirty-two cases,—are grouped with reference to parenchymatous and interstitial changes (due chiefly to chronic disease), degenerations, growths, malformations, and eccentricities. Carcinosis, waxy and fatty degeneration of the liver, hypertrophy and infarction of the spleen, form a large array of these diseases. John C. Peters gives a concise history of yellow fever in New York; Francis Delafield reports a case of red atrophy of the liver—a rare form of hob-nailed disease, due to contraction of the hepatic cells; E. G. Janeway presents a furrowed liver, the furrow being due to obstruction of the portal vein; Thos. M. Markoe contributes an unique specimen of acute miliary tubercular disease of the liver. There are no less than six cases of rupture of the spleen, all traumatic; a note suggests that this accident has been seen in typhoid, remittent, and relapsing fevers, and in cholera.

Considerable space is devoted to pyo-nephrosis and nephrotomy, cases of which, with the operation, are detailed by Alfred L. Loomis and F. D. Lente. Lente's operation of nephrotomy is the first instance on record in the literature of the last two hundred years, where the term is limited to "cutting down upon an ureter or kidney entirely free from perinephritic disease or adhesion, with no guide except the anatomical relations of the parts." This limitation corresponds with the signification of Rayer, Civiale, and Desault. Mr. Bryant's and Mr. Anandale's operations were for pyo-nephritic abscess.

There is a large category of renal cysts, and a few, too briefly noted, cases of tuberculosis of the kidney. This is a rare form of disease, easily mistaken for pyo-nephrosis, and sometimes called strumous pyelitis. Forty-four cases of affections of the bladder are noted, of which ten are ruptures; eight of the ten have a traumatic origin. So rare is a rent in the bladder in connection with a stricture of the urethra, that Sir Henry Thompson never saw it; Sir Everard Home noticed two cases, and Pitha refers to one case. Gurdon Buck's new method of puncture of the bladder is detailed—viz.: by incising, as in the bilateral operation for lithotomy, and following up the cut with the thumb in the wound and finger in the rectum, until the position of a previously introduced full-sized sound is reached. There are twenty-two cases of diseases of the Fallopian tubes and eleven of superfetation.

The observations in regard to cancer were made for the purpose of considering: (1) the accuracy of the microscope as a means of diagnosis; (2) longevity, as increased by the knife; and (3) the best treatment. The one hundred unselected cases are from St. Luke's, Presbyterian, and New York Hospitals, the Pathological Society, and the College of Physicians and Surgeons. The cases are extensively tabulated, where it will be seen that ninety-five per cent. were examined by competent microscopists. Drs. Satterthwaite and Porter have done their work so carefully, that fifty-seven cases have been completed from the inception of the disease to death. The drawings are by Mayer, Satterthwaite, and Amidon.

The third volume will rank with the previous ones as a text-book of pathology. The editor is to be congratulated on the character of their favorable reception by such authorities as the *Edinburgh Medical and Surgical Journal*, whose notices appear in the preface; while the present reviewer attests to the announced opinions of Billroth and the Librarian of the Royal College of Surgeons, London, made in private conversation.

A BIOGRAPHICAL DICTIONARY OF CONTEMPORARY AMERICAN PHYSICIANS AND SURGEONS. Edited by WILLIAM B. ATKINSON, M.D. Second Edition; Enlarged and Revised. Philadelphia: D. G. Brinton. 1880.

THE present is hardly an improvement on the first edition of this work. The paper, if possible, is poorer than before, the type old and more worn, and the portraits are omitted. This latter circumstance is no particular calamity, except so far as it detracts from the general appearance of the volume and denies the reader the opportunity of amusing himself with the vanities of others.

There are a number of new biographies, sixteen pages of which form an appendix to this condition, and two pages of corrections. Each of these additions is provided with a separate index. Why the subjects should not have been incorporated in the body of the work does not appear, unless perhaps that, with the exceptions noted, the work is printed from the stereotype plates of the former edition. Dr. Atkinson is still the editor—the publisher being D. G. Brinton, of Philadelphia.

CHICAGO MEDICAL GAZETTE.—The first number of this new bi-weekly journal is at hand, and is a very creditable issue. Dr. E. C. Dudley is the editor.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, Nov. 12, 1879.

DR. E. L. KEYES, PRESIDENT, IN THE CHAIR.

SARCOMA OF SUPERIOR MAXILLA.

DR. MASON exhibited a section of the cranial and facial bones, showing the termination of a sarcoma of the superior maxillary bone. The patient from whom the specimen was removed was a widow, aged thirty-four years. Dr. Mason saw her, for the first time, during February of 1878, when she was sent to Roosevelt Hospital. Her history then was, that two years previously she had an abscess of the left upper jaw, supposed to be due to a defective tooth. After the abscess discharged itself, a small, soft, smooth growth made its appearance on the opening, and continued to increase in size.

At the time of her admission to the hospital, the whole superior maxilla seemed to be involved in the growth. She suffered from intense pain, the left eyeball protruded, and the sight was defective. Her general condition was much below par, so that the operation was deferred for a month, she having been under tonic treatment in the meantime.

The entire superior maxillary bone was removed in March, 1878. On examination, the growth was found to be a spindle-cell sarcoma. She speedily recovered from the operation, the pain was relieved, but the vision still remained defective. She left the institution, apparently perfectly well, in August of that year.

In March, 1879, she called on Dr. Mason, when the disease was found to have returned. A growth of considerable size was found projecting into the mouth, was very vascular, and had occasionally given rise to hemorrhage through the mouth and nose. She was again sent to the hospital. Dr. Weir then removed all the growth within reach. She recovered speedily from that operation, but soon the growth again appeared, increased rapidly in size, and was attended by profuse hemorrhages, necessitating the frequent application of Paquelin's cautery. She gradually failed, and died July 16, 1879.

A careful autopsy was made. The base of the nose was protruded, and the cavity of the left nostril was completely plugged by the growth, the latter making its way externally. The space formerly occupied by the superior maxilla was filled with sarcomatous tissue, also the posterior nares, a portion of the pharynx, the sphenoidal and ethmoidal cells, and lastly through the sphenoidal fissure into the middle fossa of the skull. In the latter locality the growth was the size of a pigeon's egg. The left optic nerve was found surrounded by the neoplasm.

In answer to a question from Dr. Seguin, Dr. Mason stated that there were no cerebral symptoms manifested, save those that were due to loss of blood.

CARCINOMA OF THE RECTUM—LUMBAR COLOTOMY.

DR. HOWE presented a specimen of carcinoma of the rectum, removed from the body of a female upon whom lumbo-colotomy had been performed.

Anne Porlome, æt. 58, a native of Bohemia, was admitted to St. Francis's Hospital, Feb. 19, 1879. She

could not speak English, and all the history attained—a meagre one—was given by her brother.

Eleven weeks previous to admission she began to feel pain on defecation, which gradually increased as the disease progressed. There was also great difficulty in emptying the bowels. Some blood came away with the feces. Fæcal matter was stringing out reddish yellow in color. She was confined to her bed for several weeks previous to coming to the hospital, and had been one week without an evacuation of the bowels.

On examination, the patient exhibited well-marked cancerous cachexia. She suffered intensely. The abdomen was greatly distended and tympanitic. Pressure over it occasioned pain. The rectum seemed completely closed by irregular masses of new formations, which were soft on the surface and which bled freely. There was a small, but constant discharge of pus and blood from the rectum. The margin of the anus was red and indurated.

An attempt was made to move the bowels by passing a gum-elastic catheter beyond the mass which closed the rectum, and injecting warm water and sweet-oil. Castor-oil was also given internally, but all failed to give relief.

On the third day after admission I performed lumbar colotomy in the usual manner. When the gut was opened, there was considerable discharge of gas, with small portions of hardened feces.

Patient was ordered hypodermic of morphia, ten minims, and ten grains of quinine. Morning after the operation pulse was 146, temperature 102°. Had six passages through the artificial anus during the day. On the 3d, three days after the operation, patient was very comfortable, had little or no pain; temperature, 101°; pulse, 102. General improvement continued. One week after operation sutures were removed—upper portion of wound healed by first intention—lower portion was ununited and suppurating freely. Pulse, 100; temperature, 100°.

On March 7th there was some prolapse of the gut, and diarrhoea, which was early checked. Wound healed. Patient continued free from pain; her appetite returned as she gained in strength, until she left the hospital in June. She afterward went to Ward's Island Hospital, where she remained until she succumbed to cancerous disease of the rectum, September last. Her life was prolonged seven weeks.

In answer to a question from Dr. Briddon, Dr. Howe stated that the prolapsus was three inches.

DR. BRIDDON referred to a case in which the prolapsus was the length of the arm. In his own cases, four in number, there was no protrusion through the new anus. He did not believe that the kind of incision, whether straight or oblique, had anything to do with the result.

In connection with this subject of lumbo-colotomy Dr. Mason referred to a case in which sudden death after the operation was due to copious alvine evacuations. Two or three similar cases were on record as having occurred abroad, but his was the first of the kind in this country.

DR. HOWE presented a second specimen, consisting of a calculus removed from a female bladder by dilatation of the urethra.

LITHOTRITY IN THE FEMALE.

Anne M'Manus, æt. 60, unmarried, was admitted to St. Francis's Hospital, September 22, 1879. Has always been in delicate health. Two and a half years ago she had an attack of renal colic, which lasted nearly four hours. Shortly after this she began to

complain of a lancinating pain in the hypogastrium, frequent desire to micturate, and pain also about the meatus urinarius. For two years past she has been unable to pass her water. It had to be drawn off with a catheter. The catheter for some months previous to admission had to be passed fifteen times each day. The pain was constant, and received little or no relief from the catheterization.

On examination, patient was found to be pale and very much emaciated. The urine was alkaline on reaction, contained pus and mucus, and phosphites. On passing the sound, a calculus was found occupying the roof of the bladder near the neck. She was unable, or at least seemed to be unable, to pass her water under any circumstance.

On the 26th of September patient was etherized, and the neck of the bladder dilated with Molesworth's dilator, and two calculi extracted. The larger one was held in position by a layer of false membrane.

After operation, ten minims of morphia were injected, and ten grains of quinine given by the stomach.

Sept. 27th.—Pain in hypogastric region is diminished, but not completely absent. Pulse and temperature normal. Urine dribbles freely from the meatus.

Sept. 28th.—No pain in bladder; considerable pain at meatus urinarius, which is much swollen. Incontinence has ceased, and can pass water without any difficulty.

Sept. 29th.—Complains of pain and inability to make water. Catheter is again used.

Sept. 30th.—Patient able to go about; feels comfortable. Pus and mucus in very small quantities in the urine, but she insists on having the catheter used every three or four hours. Thinking that there was a little nymphomania evident in this, I ordered the catheter to be discontinued. For two days she passed water, but on the third day prevailed on the nurse to use it again, in order, as she said, to relieve her pain, and until she left the hospital I allowed its use two or three times each day, although I felt convinced that she could do without it, and that it was simply a desire for titillation which created a demand for its use.

It is a curious fact that the incontinence did not continue for some days longer in this case. Usually, after dilatation of the female urethra, there is incontinence for at least one week. In this case it lasted only twenty-four hours.

Unless the stone is very large, I think the lithectomy, if performed by means of Molesworth's dilator, is the best operation. The urethra can be stretched for an inch and a quarter without any danger of permanent incontinence, and in a few days resumes its normal size and function. The dilation of the urethra also serves another purpose, viz., cure of the cystitis. I have performed it for that disease alone with good results, and the cystitis due to the stone is much more rapidly removed than when crushing is resorted to.

WAXY DEGENERATION OF THE PLACENTA.

DR. HEITZMANN presented some specimens of placenta, with a view of supplementing a previous report upon the real character of the so-called fatty degeneration of that organ. He had concluded, from a number of specimens examined, that the deposit was waxy in character. His reasons for such opinion are given in a detailed written report.

This subject had been worked up in his laboratory by Dr. Jeannette B. Greene, resident physician in the House of Mercy. Ten placenta were examined, the youngest six weeks, the oldest eight months,

most of which were thought to be fatty when looked at with the naked eye. In eight cases the fetuses were born dead, or died shortly after delivery. The waxy degeneration was located both in the decidua portion and the villosities, only in three cases there being present a relatively trifling fatty degeneration of the decidua-elements. The nutrition of the fetus is interfered with by compression of the blood-vessels in the villosities, and in certain territories all vessels become impermeable to blood-corpuscles. The following reagents were applied: carmine, oil of cloves, turpentine, iodine, fuchsin, and methylanilin. It was shown that the waxy degeneration attacked the basis substance and killed the living matter only in the highest degrees of the disease, while the fatty degeneration takes place in the living reticulum of the protoplasm, mainly in the decidua-elements. In one case there was waxy degeneration of the amnios; in two cases waxy degeneration of the umbilical cord.

THE MICROSCOPICAL EXAMINATION OF THE SKIN IN A CASE OF ERYSIPELAS.

DR. AMIDON presented microscopic specimens of idiopathic erysipelas as contributions to the study of the pathological anatomy of that affection.

An exceedingly violent facial erysipelas attacked a patient convalescing from acute articular rheumatism, and, complicated by a croupous pneumonia, proved fatal on the fifth day. The pulse ranged from 80 to 140, the respiration from 28 to 60, and the temperature from 39.5° C. to 40.6° C. Besides the visceral changes usually found in this disease, a minute examination of the skin (taken from the inflamed area) showed the following lesions: desquamation of the epidermis; rete mucosum everywhere thin, and in places separated from the subjacent papillae and disintegrated. The hair-follicles, sebaceous and sudoriferous glands the seat of abnormally large collections of young epithelial cells; many of the large and small blood-vessels are thrombosed, and all along their course a moderate, and in spots an excessive, migration of new cells has taken place. The subcutaneous cellular tissue everywhere contains an increased number of nuclei, especially marked in the adipose tissue. Here and there disorganized, sloughy masses are met in the subcutaneous areolar tissue, almost miliary in size. The subjacent muscle (in this case platysma) was the seat of a waxy change.

DROPSY CELL-FORMATION.

DR. SEGUIN presented an example of very rare elemental disease of the nervous system, consisting of several ganglionic cells which had undergone the vacuole or dropsy cell-formation. The specimen was a section of the spinal cord below the point of softening of a case of descending degeneration of the lateral portions of the posterior columns. He remarked that the lesion had been observed by very few, and its pathological significance was at present unknown. These vacuoles presented the appearance of transparent circles, in some cases overlapping each other, seemingly embedded in the substance of the ganglionic cell. By some observers they were thought to have no pathological importance, being simply accidental appearances. Charcot, for instance, was inclined to believe them to be the results of decomposition.

THE PATHOLOGICAL DIFFERENCES OF DIPHTHERIA AND MEMBRANOUS CROUP.

DR. LEWIS SMITH presented the larynx and trachea removed from an infant one and a half years old, who

had died of diphtheria a few days after the attack. The patient had been seized with hoarseness, followed by croupy cough and the usual attendant symptoms. No pseudo-membrane was visible in the fauces.

At the autopsy this exudation was discovered on the posterior surface of the uvula and along the adjacent sides. Dr. Smith exhibited the specimen for the sake of calling attention to the question of the diagnosis between diphtheria and croup. Clinically he could make out no distinction between the two, except that one was contagious, and the other not.

DR. HEITZMANN stated that four years ago he had the opportunity of examining many specimens of pseudo-membrane and sputa removed from the throats of children dying of diphtheria and croup. Many of these specimens were sent to him by Dr. Lewis Smith. As the result of his microscopical observations he had come to the conclusion that croup and diphtheria, as far as the deposit was concerned, were essentially the same thing, the only difference being that in croup the pseudo-membrane coagulates upon the surface of the membrane, killing the superficial epithelium, while in diphtheria this exudation goes into the substance of the tissue. When the latter condition obtains, there is death of the deeper tissues, and subsequently the appearance of nests of micrococci. It could easily be seen that in the earlier stages the membrane could be peeled off, while in the later stages this was impossible. In the earlier stages of the deposit the presence of the nests of micrococci was impossible.

DR. CARPENTER asked if a diagnosis could be made on the presence or absence of micrococci.

DR. HEITZMANN believed that this could be done in the earlier stages of the deposit.

DR. RIPLEY remarked that he had examined seventy-five cases in which pseudo-membrane had existed in the fauces, and in all micrococci were present. Consequently, allowing the theory advanced by Dr. H. to be the correct one, all the cases were those of diphtheria. Again, he had met with cases in which the membrane could be peeled from the underlying tissue, and yet these died of diphtheria with the usual symptoms of blood-poisoning.

DR. HEITZMANN stated that, in speaking of micrococci in diphtheria, he had purposely referred to their occurrence in nests. Otherwise there was no significance in their appearance, as it was well known that they were always more or less scattered in old mucus.

ANEURISM OF THE ARCH OF THE AORTA.

DR. RIPLEY presented a specimen of aneurism of the arch of the aorta. The history was as follows:

F. M., German, æt. 34, waiter, was admitted into St. Francis's Hospital, Feb. 10, 1879. His family history could not be ascertained. He himself had had scarlet fever when a child, typhoid fever at seventeen, and subacute articular rheumatism eight years ago. He had also had several attacks of gonorrhoea, and five years ago syphilis. His present illness began several weeks ago, when, after exposure to cold, he began to suffer from pains in both scapular regions, the left hip, and left side. To these symptoms were added a dry cough and slight dyspnoea on exertion.

As the history book does not show that a general physical examination was made at this time, I presume it was not down, although a double aortic murmur is recorded. His troubles, for the most part, were attributed to constitutional syphilis, and after remaining in the hospital six weeks under treatment for that disease, he had so far recovered as to be able to resume work, and complained only of hoarseness,

which had been present during most of the time he was in the hospital. He continued at his business until the following September—four months—when he became a patient at the hospital. On admission he stated that he had not been free from hoarseness while away, and had periodic attacks of cough and dyspnoea. His subjective symptoms now were weakness, paroxysmal cough, and dyspnoea on exertion, and pain in the left shoulder, left side, and the left interscapular regions. He was aphonic, and had a harsh laryngeal cough, accompanied with abundant muco-purulent expectoration. Rest and sedatives relieved his distressing symptoms for a time, and my attention was not called to him until the middle of October, when notes were made of the following physical signs:

On inspection, deficient expansion was observed under both clavicles, most marked under the right; also epigastric and intercostal retraction during inspiration, most marked on the left side. By palpation the apex of the heart was found beating feebly in its normal position. No abnormal impulse could be felt at any point over the chest-walls. The left radial pulse was much smaller and feebler than the right, while pulsation in the left common carotid was stronger and fuller than in its fellow. Percussion under the right clavicle was vesiculo-tympanic; in the left infra-clavicular region it was very dull, more marked nearer the sternum. The inspiration was broncho-vesicular under the right clavicle, and the expiration prolonged and wheezy. On the left side, in the same region, the inspiration was bronchial, while nothing but converged laryngeal sounds could be heard on expiration. Below these regions sibilant and sonorous râles accompanied a feeble respiratory murmur. Behind, in both interscapular regions, there was dulness on percussion, but more extensive and pronounced on the left side. Below, over both lungs, the percussion was tympanic. The respiration in the right interscapular region was broncho-vesicular, accompanied with dry râles; and in the same region, on the left, it was purely bronchial. Below, over both lungs, exaggerated breathing.

The diagnosis of an intra-thoracic tumor was made, with, of course, the probabilities favoring aneurism. The case was referred to Dr. Elsberg for a laryngoscopic examination, who reported that he found "congestion of the soft parts in the interior of the larynx, and complete paralysis of the left vocal cord." After hearing the history, he expressed the opinion that the symptoms were due to aneurism. A few days later, I detected a slight diastolic murmur, heard only over a very circumscribed space in the median line near the fourth costo-sternal articulation. A positive diagnosis was now made of any aneurism of the transverse portion of the neck of the aorta pressing upon the left bronchus and trachea.

The further progress of the case presented few new features. The cough and dyspnoea continued to be the most prominent symptoms, pain not being very constant nor very severe. The patient died of exhaustion, October 22d, after having passed a night of great suffering from continuous difficulty of breathing.

The autopsy was made twenty-four hours after death, by Drs. Schlereth and Cauldwell, of the house staff. After removing the sternum it was observed that the lungs had not collapsed, but that the parts visible were in a state of extreme inflation and bloodless. There was no fluid in the pleural cavity. The middle lobe of the right lung, and the lower lobe of the left lung were firmly attached to the costal

pleura, by old inflammatory bands. The lungs still remained distended after removal from the chest, and were comparatively bloodless, except their lower lobes, which were the seat of hypostatic congestion and oedema. Several subpleural air-bulbs were noticed in either lung, and the superficial vesicles generally appeared larger than normal. The larger bronchi, especially of the left lung, were filled with muco-pus, and the mucous membrane inflamed. The heart and great vessels, the larynx, trachea, and the stumps of the primary bronchi and the oesophagus, were removed *en masse*. An examination of these organs showed a sacculated aneurism the size of a large Havana orange springing from the posterior and superior wall of the transverse portion of the arch of the aorta, and including in its pouch the origins of the left common carotid and the left subclavian arteries. It had rested upon the left side of the body of the third dorsal vertebra, which, denuded of its periosteum and partially absorbed, had formed the posterior wall of the tumor. It had also forced its expansion downward into the left broncho-tracheal angle, so as to flatten and partly close both of these tubes. The left inferior laryngeal nerve was pressed upon throughout nearly its entire length, and was with difficulty dissected out for examination. The ascending part of the arch was noticeably dilated and atheromatous. The heart presented no marked pathological changes. The mucous membrane of the interior of the larynx above the vocal cords was congested and a little thickened. The liver and kidneys were congested. Traces of an old perisplenitis were found, and the organ itself was enlarged. The other organs were not examined.

The points which seem to me of most interest in this case are:

1. The inflated and emphysematous condition of the lungs.
2. The absence of any marked hypertrophy of the left ventricle of the heart.
3. The presence of a diastolic murmur alone.
4. The mechanical paralysis of the recurrent nerve.

The state of the lungs was of especial interest to me because it corresponded, substantially, to that in which I have found those of children who have died of bronchial croup after tracheotomy, and due, practically, to the same cause—narrowing of the air-passages. In a majority of these cases, the children die in from about sixty to eighty hours after the operation. The cough increases, the pulse and respirations become accelerated, and the temperature rises to 103°-105°. Nearly the same physical signs are present as before the operation. An autopsy shows inflated and anemic lungs, while here and there a patch of collapsed membrane lines the tubes to a variable extent, completely plugging those branches leading to collapsed lobules. I have never yet found pneumonia at such autopsies, although it is put down in the text-books generally as the most frequent cause of death.

OVARIAN CYST AND CYST OF BROAD LIGAMENT.

DR. C. C. LEE exhibited two specimens, one consisting of a large ovarian cyst, and another of a cyst of the broad ligament, for the purpose of comparing the pathological appearances of each. The ovarian cyst had been removed by him ten days before, and contained twenty pounds of albuminous ovarian fluid. Notwithstanding it had been growing for ten years, not a single adhesion was present.

The second specimen, that of cyst of the broad ligament, was removed by Dr. Emmet. It contained

clear fluid, non-albuminous in character, and of a low specific gravity, and contained none of the ovarian corpuscles.

Dr. Lee called attention to the differences in the physical appearances of the two specimens. The ovarian cyst was smooth, and showed no veins upon its surface, while the cyst of the broad ligament presented the appearance of a fibro-cystic growth covered with veins.

The diagnosis between these two growths was not very easy before operation. Still it was well to take into account the extreme rarity of cysts of the broad ligament compared with ovarian tumors, their comparatively slow growth, and the small amount of constitutional disturbance which they caused. The character of the fluid would be of assistance in arriving at an opinion, inasmuch as said fluid was not albuminous and did not contain the characteristic ovarian corpuscle.

RAPID LITHOTRITY—DEATH.

DR. KEYES presented specimens of five urinary calculi removed from five old men averaging over sixty-six years of age.

The largest stone weighed 540 grains, and was removed by Thompson's washing-bottle in fifty-seven minutes, all told. The smallest stone weighed ninety-eight grains dry. It was removed in nineteen minutes.

Dr. Keyes used his own modification of the lithotrite for crushing the stone in every case.

Thompson's newest improvement in the washing-bottle was exhibited. It was used in Dr. Keyes's last case.

These stones made a series of twenty consecutive operations of rapid lithotrity performed by Dr. Keyes in connection with Dr. Van Buren.

There had occurred one death. It was the fourth of the last five of the series. The bladder and kidneys were shown.

This patient was a gentleman of sixty-seven. He was known to have pyelitis and kidney disease before the operation. His urine was very light, and contained casts and albumen besides the pus.

The patient had been confined to bed by his maladies nine months. The stone had not been discovered.

Dr. Keyes concluded to attempt rapid lithotrity as being the only operation offering the patient any chance.

The bladder was pouched toward the right ureter. Thirteen minutes were consumed in catching the stone for the first time, and a seizure was only finally effected by turning the patient well upon the side.

After one hour of manipulation, rendered very unsatisfactory by the pouched condition of the bladder, the sitting was terminated; one hundred and ninety grains were removed. No chill or serious consequence followed, and it was decided, after three weeks, to undertake another sitting.

The second sitting lasted one hour. Débris, weighing when dry twenty-eight grains, required one hour for their removal, it being next to impossible to get the last fragments out of the pouch. An increase in the quantity of pus in the urine followed with almost total suppression, and death on the fifth day.

The right kidney was shown of about one-half its normal size, and the seat of interstitial nephritis. The left kidney was of full size, but similarly diseased, although to a less extent. Each kidney pelvis contained about a gill of thick pus, the left one some

fragments of phosphatic stone. Both ureters were thickened and dilated.

The urethra was healthy. The prostate was the seat of some central enlargement.

The bladder was smooth and uncongested. It showed no evidence of violence. The mucous membrane was unbroken. The pouch at the site of the entrance of the right ureter into the bladder was very evident.

The walls of the bladder were much thickened.

Dr. Keyes maintained in this case that the patient's diseased condition was the cause of death, a catastrophe precipitated undoubtedly by the operation. He still believed, however, that the latter was justifiable under the peculiar circumstances of the case.

In one very similar case, the same operation had been entirely successful at his hands.

In the present instance, as shown by post-mortem examination, the operative manoeuvres had not resulted in any direct physical lesions.

Referring, in one of the cases, to the difficulty of grasping the stone in the bladder, Dr. Lee suggested that the stone might have been fixed by grasping the base of the bladder by the hand previously introduced into the rectum. Dr. Lee had succeeded in fixing the uterus in that manner when all other means had failed. The case was one of retained placenta with flooding.

Dr. Keyes remarked that there was less risk in resorting to such a manoeuvre in the female than in the male, the pelvis of the former being much more roomy.

The Society then went into Executive Session.

Correspondence.

RESUSCITATION OF AN INFANT AFTER A LONG PERIOD OF ASPHYXIA.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: A recent number of your journal contains an article giving an account of the resuscitation of a new-born infant after a very long period of asphyxia. A case occurring in my own practice a short time ago may be of interest in this connection.

Mary D—, an Italian woman, 18 years of age, was taken in labor Nov. 4th, at 9 o'clock P.M. I saw her soon after, and found the os partly dilated and the child presenting by the breech.

I informed the friends of the girl that, owing to the mother being a primipara and rather small, there would be some danger to the child in this case, though little or none to the mother. At 12 P.M. the os was fully dilated, but the pains were infrequent and the child made no advance. After waiting a long time, I disengaged one leg and brought it down in the vagina. At the end of another hour, the child making no advance and the woman showing some signs of exhaustion, I was compelled to make traction upon the child's foot to hasten the delivery. In thirty minutes the shoulders were born, and the arms safely brought down by the side. I then instructed the husband to make firm pressure upon the abdomen over the fundus of the uterus, while I encouraged the mother to make strong bearing-down efforts. The head soon came down so that I could insert two fingers of my left hand into the child's

mouth, while my right hand grasped the back of the child's neck under the pubic arch. This was the critical moment for the child, but unfortunately, owing to the rigidity of the mother's parts, no progress could be made for some time, and, in despite of every effort on my part, it was fully five minutes before the head was born.

The English authorities state that, if the head is delayed in the passages longer than three minutes after the birth of the shoulders, the result to the child is almost invariably fatal. In consequence of the long delay in the delivery of the head, I was not surprised to find the child asphyxiated. The cord did not pulsate, nor did it bleed when cut. My finger, when passed into the child's mouth and down into the larynx, could not detect the faintest sign of any reflex action. To all appearances, except for a faint and unfrequent pulsation of the heart, the child was limp and dead.

I at once laid the child upon blankets before the fire, and commenced artificial respiration according to Marshall Hall's method. After some fifteen minutes at this method, combined with dipping the child alternately into hot and cold water and rubbing with brandy, there was no sign of animation. I then resorted to another method of artificial respiration. Holding the back of the head and shoulders in my left hand and the pelvis in my right, with the little fingers of each hand extending along the spine, I alternately flexed and extended the body of the child, after the manner of opening and closing a jack-knife. By this means I attempted to contract and expand the cavity of the thorax. A prolonged effort by this method gave no apparent result, and I resorted to a third.

The child was placed in a sitting posture upon blankets before the fire. My right hand was placed behind the head and thorax of the child, and its body leaned backward so that it rested upon this hand. The hands of the child were carried as far as possible above its head by my left hand. By this the ribs and shoulders were raised, while the head was thrown backward, thus expanding the thorax and drawing air into the lungs. The second movement was to lower the arms of the child so that they fell by its side, while my hand, still retaining those of the child in its grasp, rested against the front of the child's thorax and head. The third movement was to lean the child forward and press suddenly downward upon its shoulders, at the same time that the hand in front pressed the ribs inward. This method, which is somewhat difficult to describe, but easy to carry out, caused the first certain expulsion of air from the child's lungs (and a consequent refilling of them), for the air could be heard bubbling out through the nose and mouth of the child. Then the lungs were refilled by the first movement. Still this respiration was entirely involuntary on the part of the child, and ten minutes' persistent effort by this method gave no sign of returning animation. Nearly three-quarters of an hour had now elapsed since the birth of the child, and meantime the child's skin began to feel cold and clammy. On account of the coldness of the child, I determined to use external heat in conjunction with artificial respiration. I called for a deep bowl partly filled with water, at a temperature of about 112°. I placed the child in the bowl in a sitting posture, so that the water came up to the child's diaphragm when its body was in what I have called the "first position" in the last method of artificial respiration.

Then the artificial respiration was kept up accord-

ing to this method, while the child's body was partly immersed in hot water. After a few minutes, I was astonished at the child showing a little color in its cheeks, and then making its first spasmodic effort at inspiration. Fully five minutes elapsed before it made another gasp, but gradually its efforts became more frequent, and at the end of an hour and three-quarters from the time of its birth, I ventured to cease artificial respiration. The child was then breathing rapidly with a shallow gasping respiration. I ordered it to be rolled in blankets, without being dressed, and placed in the bed with its mother. Two hours later its breathing was stronger, but still shallow. The following day it appeared as strong as any child, and since then has grown rapidly.

I wish to call attention to a few points in this case.

First.—The long period of profound asphyxia. It was more than three-quarters of an hour before the child gave the faintest sign of returning animation. The asphyxia was so profound, that during all this time, when my finger was carried down into the child's larynx, so as to touch its vocal cords, there was not the slightest indication of reflex action. Hence, I judged that external stimuli, such as slapping and dipping into alternately hot and cold water, would have but little effect in this case. There have been cases of longer asphyxia of the new-born than this reported, but I venture to say that many infants are allowed to perish, because less persistent efforts on the part of the accoucheur are made than were made in this case.

Second.—This method of artificial respiration, with the child in the sitting posture, as I have described it on a former page, is in my judgment more efficient than any other method of artificial respiration for the new-born.

The defect in the Marshall Hall method of artificial respiration is, that while the thorax is being compressed to cause expulsion of the air from the lungs, the diaphragm is apt to be pushed downward, thus partly annulling the effect. In the method of respiration by flexing and extending the body of the child, the arms of the child are not raised above its head during the attempts at expanding the thorax, hence the fullest expansion is not attained.

But in the method with the child in the sitting posture, the arms of the child are carried above its head during the attempts at filling the lungs, while in the expiratory effort the diaphragm is pushed strongly upward at the same instant that the ribs are pressed inward.

Third.—This method of artificial respiration is the only one that can be conveniently used while the body of the child is partly immersed in hot water; that is, the only method that can be used while a high degree of external heat is closely and constantly applied to the subject.

Fourth.—The value of external heat in asphyxia neonatorum.

It has come to be a recognized fact that external heat is of great value in restoring animation in cases of drowning or fainting. It should not be of less importance in asphyxia of the new-born. In a profound case of asphyxia neonatorum, the continuance of the asphyxia is not due to the absence of respiration alone—for, by a good method of artificial respiration, we can perform this function, so far as regularly supplying the lungs with air is concerned; but it is due to the weak and deficient circulation of the blood. As a consequence, the nerve centres do not receive the stimulus of oxygen, and the respiratory

and other functions are not established. Hence, the indication is to supply a strong stimulant to the circulation. Such a stimulant is external heat, and practically it is the only stimulant that can be employed in these cases.

Not alone does external heat act as a stimulant to the circulation, but it prevents that rapid waste of animal heat that must ensue where the usual methods of artificial respiration are employed.

Without laying claim to originality in the use of external heat alone in the resuscitation of the new-born, or of artificial respiration alone, yet, so far as I know, this is the first case reported where a high degree of external heat and an efficient method of artificial respiration have been combined in the same method of resuscitation.

W. E. FOREST, M.D.

163 SPRING STREET. Dec. 8, 1879.

GRATUITOUS SERVICES TO CLERGYMEN.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR:—In a recent editorial you alluded to the custom of "deadheading" clergymen, and suggested that the medical profession owed them little consideration, on the ground that they (the clergymen) were among the strongest upholders and abettors of quackery, and exerted their influence against the welfare of the profession far more frequently than in favor of it. A striking instance of this appeared in this morning's paper, announcing the formation of another Twenty-five Cent. Provident Dispensary, which, the newspaper informs us, is recommended by the Rev. Dr. Crosby, the Rev. Dr. Ormiston, the Rev. Dr. Collyer, Bishop Potter, and the Rev. Dr. Taylor. Do these gentlemen really suppose that the enterprise is conceived in a spirit of pure charity? Do they not know that the "provident" feature is rather calculated to provide a comfortable living for an impecunious doctor, than to create a feeling of independence among the poorer classes, and help the general profession? We are glad to find that the name of the physician in charge of this new Provident Dispensary is not in the Medical Register.

Yours respectfully,

M. D.

ARMY NEWS.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 7th to December 13th, 1879.

KIMBALL, J. P., Capt. and Asst. Surgeon. When relieved from duty at White River, Colo., to proceed to Ft. Sanders, Wy. T., and resume his duties as Post Surgeon. S. O. 111, Dept. of the Platte, Dec. 6, 1879.

DEWITT, C., Capt. and Asst. Surgeon. To resume his duties as Post Surgeon, Fort Sidney, Neb. S. O. 111, C. S., Dept. of the Platte.

BENGAL BRANCH OF THE BRITISH MEDICAL ASSOCIATION.—An Indian branch of the British Medical Association was founded several years ago, but has not held any annual meetings for a considerable time. It is now to be revived, and made an active organization again.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 13, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Dec. 6, 1879....	0	8	48	1	122	51	0	0
Dec. 13, 1879...	0	11	51	1	196	33	0	0

SUITS FOR MALPRACTICE.—At a regular meeting of the Baltimore Medical and Surgical Society, the following preamble and resolutions were unanimously adopted:

"Whereas, There have occurred of late several instances of unjust and unwarrantable prosecutions of members of the medical profession for alleged malpractice, with the evident intention of mulcting them for damages, we deem it advisable, for the protection of the profession, to urge upon them not to lend aid or countenance to such efforts by unguarded expressions of opinions; and therefore be it—

"Resolved, by the Medical and Surgical Society of Baltimore, That as physicians and surgeons we will not aid, abet, or encourage any proceeding favoring suits for malpractice against members of our profession who are in good standing.

"Resolved, That we will uphold the dignity and honor of the profession under all circumstances, and support and sustain its members when shadowed by unjust demands or assailed by unworthy asseverations."—*Virginia Med. Monthly*.

AMERICAN MEDICAL ASSOCIATION.—At a meeting of the Committee of Arrangements of the American Medical Association, held in this city Dec. 3, 1879, the following committees were appointed: *Committee on Building*—Drs. M. A. Pallen, M. H. Burton, W. M. Polk. *Reception Committee*—Drs. Jos. C. Hutchinson, W. M. Polk, M. A. Pallen. *Committee on Finance*—Drs. Stephen Smith, A. A. Smith, W. R. Gillette, R. F. Weir, M. H. Burton, E. H. Parker. *Committee on Business*—Drs. M. A. Pallen, Jos. C. Hutchinson, Stephen Smith. *Committee on Invitations*—Drs. W. M. Polk, R. F. Weir, E. H. Parker. *Committee on Entertainment*—Drs. C. J. Pardee, M. A. Pallen, F. Weir. *Committee on Printing*—Drs. R. F. Weir, Stephen Smith, W. R. Gillette. S. O. Vander Poel, M.D., Chairman Committee of Arrangements; W. R. Gillette, M.D., Secretary Committee of Arrangements.

DR. ALFRED H. MCCLINTOCK, the eminent Dublin obstetrician, is expected to reach this city early in the coming January.

DR. JOHN L. ATLEE, OF PENNSYLVANIA.—Dr. J. Marion Sims gave a reception on Friday evening, December 12th, at his residence on Madison Avenue, in honor of Dr. John L. Atlee, of Lancaster, Penn., who made a short visit to this city. The attendance was large, and represented the medical celebrities of this and neighboring cities. Dr. Sims made an appropriate speech, which he concluded by reading a letter of regret from Prof. Gross, of Philadelphia.

Dr. Atlee responded, and humorously referred to the telling qualities of the Dutch blood of Pennsylvania. He also took occasion to say that the courses of instruction in the medical colleges were too brief. The effectiveness of this part of the speech was well-nigh destroyed by a playful remark of Dr. Sims, to the effect that both himself and Dr. Atlee took only two courses of lectures. But Dr. Atlee was equal to the occasion by the remark, "We could learn more than than students can now."

A bountiful supper was afterwards served, and the remainder of the evening was spent in pleasant social intercourse.

Among the gentlemen present were Professors Barker, Darling, Draper, Gouley, Hammond, Hamilton, Keyes, Lusk, Loomis, McCready, Noyes, Otis, Pallen, Sayre, Seguin, Taylor, Thomson, Wood, and Doctors Anderson, Agnew, Clymer, Eliot, Garrigues, Gillette, Heitzman, May (of Washington), Nichols, G. F. Shradly, Charles D. Smith, and a host of representative young men in the profession.

There was a large delegation from Brooklyn amongst them: Armor, Bell, Burge, Dudley, and Hutchison. Also, Kimball, of Lowell; Swinburne, of Albany; Didama, of Syracuse; Fisher, of Sing Sing; Vedder, of Jersey City; Levis and Goodell, of Philadelphia, and Bramlette, of Virginia.

NEW YORK MEDICAL JOURNAL.—Dr. James B. Hunter has resigned his position as editor of the *New York Medical Journal*. His successor is Dr. Frank P. Foster, of this city. Dr. Hunter has been for a long time connected with this journal, and has succeeded in placing it in the front rank of American monthlies. From what we know of the ability and industry of Dr. Foster, the new editor, we have no doubt that the high reputation of the periodical will be maintained. We cordially wish him abundant success.

JOURNALISTIC CHANGES.—The *Medical News and Library*, and the *Monthly Abstract of Medical Science*, have been consolidated into a single issue—*The Medical News and Abstract*. The "library" department of the *News* has been given up and the clinical department enlarged.

HONORS TO DR. J. LAWRENCE SMITH.—Professor Smith, who has, in addition to many other honors, recently been made Corresponding Member of the Institute of France, was tendered a complimentary dinner by the citizens of Louisville on his return to that city. A number of toasts were given and speeches made. Among others a toast to "The Press" was responded to by Dr. R. O. Cowling, of the *Louisville Medical News*, who, in a very clever speech, maintained that the *L. M. News* was the only independent political journal in the city.

PROF. GEORGE E. POST, M.D., BEIRUT, SYRIA.—We are gratified to learn that our countryman, Professor George E. Post, M.D., has been knighted by the Prussian Government, and has received the decoration of the "Ernestine Hausorden of Saxony," on account of his services in the Hospital of St. John, under the charge of the Prussian deaconesses at Beirut, Syria.

SALISBURY PLAN OF TREATMENT OF CONSUMPTION.—Dr. Ephraim Cutter has established a small "home" near Boston, for carrying out the Salisbury treatment of consumption. Dr. S., we believe, claims to diagnose consumption one year before the development of its usual symptoms and signs. This is done by

examining the blood, which, in the protuberulous state, contains certain spores and fibrin filaments. The method of cure is by a rigid system of diet, raw meat being a prominent feature of the same.—*Va. Med. Monthly.*

PAINLESS LABOR.—Dr. William Badger, of Flushing, N. Y., writes: "In your issue of November 22d, is an article with above caption, by Dr. A. M. Smith, which encourages me to relate the following particulars, which I have refrained from publishing earlier, fearing it might appear slightly fishy:

"In the spring of 1875 I was engaged by Mrs. F. to attend her in her fourth confinement; she requesting me to go as speedily as might be when called, as she 'had never had any pain in her previous labors, and consequently could not know how early to send.'

"On the morning of April 20th I received the expected summons. While removing my overcoat she exclaimed, 'Hurry, doctor, I fear you are almost too late.' I replied, 'You do not appear to be in pain.' She answered, 'I have no pain, but I know it is coming.' I found the head upon the perineum, and the delivery was completed by two strong expulsive uterine efforts; but, as she assured me, without pain, and her countenance and manner were not indicative of the slightest suffering.

"She had no after-pains—said she had never had any—and was up on the fourth day.

"In subsequent conversations, she again assured me that in her four confinements she had had no labor pains."

IN THE HIGHER WALKS OF CHEMISTRY.—At a late meeting of the Section of Chemistry of the New York Academy of Sciences, a paper was read with the following title:

"Some New Azo-compounds: including Azobenzol-trinitro-oxybenzol, Azobenzol-trioxybenzol, Azobenzol-oxicarboxylbenzol, Azosulphoxylbenzol-phloroglucin, Diamidoazo-toluol, Diamidoazo-naphthaline-hydrochlorate, and Azobenzol-methylsulphoxylbenzol"—(with specimens).

This shows progress, and gives us hope that many of the hidden things may yet be revealed unto us. Possibly some of these compounds would be of service in diphtheria, by being effective bacteriericides. For most horses, the hay is a little beyond reach, but to the few who are accustomed to feed from high levels, rare opportunities are now offered. The Diamidoazo-naphthaline-hydrochlorate would seem to give the best promises for further study. We venture this opinion without having seen the specimen. At all events, we are pleased to learn that our chemical friends are still adding to our stock of knowledge, and helping to make their science an exact one.

THE DOCTOR'S FEE AND THE WAY OF THE WORLD.—Patient with severe colicky pains at 3 A.M., says to his doctor:

"Save me, and I will give you a check for a thousand dollars."

As patient is wealthy, doctor smiles "childlike and bland," and administers an hypodermic injection of morphine.

Five minutes have elapsed, and patient feels easier.

"Keep at it, doctor, and I will give you a check for five hundred dollars."

Five minutes more, and patient drowsily turns in his bed, smiles his thankfulness through his tears, and assures the doctor that he feels like giving him a "fif-t-y dol-lar bi-ll."

The doctor calls the following day, finds his patient up and dressed, and ready to go to his business. "You see, doctor, I have got over my little attack without giving you much trouble, but be sure to send in your bill the first of the month."

When six months elapsed the doctor sent in a bill amounting to three dollars. His grateful patient pressed him to cut it down to two. After so doing, the doctor sued to get it, and his patient put in a stay of execution. Case still on.

The doctor has lost his faith in grateful humanity, has moved to Pine Ridge, on the Hudson, and is negotiating for a partnership with the "Successful Practitioner."

THE LATE DR. OLIVER WHITE, OF NEW YORK.—At a meeting of the Medical Board of the Presbyterian Hospital, held Nov. 12, 1879, Drs. William Detmold, Jared Linsly, and Gouverneur M. Smith were appointed a committee to prepare resolutions in relation to the decease of Dr. Oliver White, which resolutions we herewith respectfully submit.

Whereas, Dr. Oliver White, an earnest friend of the Presbyterian Hospital from its incipency, and for a number of years President of the Medical Board, has been removed by death:

Resolved, That the Medical Board desires to express and to place on record its warm appreciation of the loss the hospital has sustained by this bereavement.

Resolved, That Dr. White, during the inception of the hospital, and before it was erected, interested himself in promoting the success of the benevolent enterprise, and in engaging both the influence and means of a number of the medical profession in promoting the humane purpose of the institution.

Resolved, That Dr. White, to the close of life, was unrelaxing in his interests in the hospital, and, when smitten with disease, persisted in performing his duties until overwhelmed by his malady.

Resolved, That as Consulting Physician and as President of the Medical Board, his counsels were wise, being governed by intellectual vigor and Christian principle, and that the successful career of the hospital has been due in no small measure to his watchfulness and guidance.

Resolved, That a copy of the above preamble and resolutions be sent to the family of the deceased, to the Board of Managers of the Hospital, be recorded on the minutes of the Medical Board, and be published in the medical journals.

S. T. HUBBARD, *Chairman.*

JAMES V. S. WOOLLEY, *Secretary.*

BOOKS RECEIVED.

PARACENTESIS OF THE PERICARDIUM. By JOHN B. ROBERTS, A.M., M.D. Philadelphia: J. B. Lippincott & Co. 1880.

PHYSICIANS' DAILY POCKET RECORD, comprising a Visiting-list, Memoranda, etc. D. G. BRINTON, Philadelphia. 1880.

TRANSACTIONS OF THE ILLINOIS STATE MEDICAL SOCIETY, 1879. Chicago: C. H. Blakely & Co.

ANNUAL REPORT OF NEW YORK METEOROLOGICAL OBSERVATORY FOR 1878. DANIEL DRAPER, Director, New York.

THE THEORY AND PRACTICE OF MEDICINE. By FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P. Third American from Fourth London. Philadelphia: Lindsay & Blakiston. 1880.

Original Communications.

SOME OF THE COMMONER AFFECTIONS OF THE TON- SILS, FROM A DIAGNOSTIC AND THE- RAPEUTIC STANDPOINT.*

By GEORGE M. LEFFERTS, M.D.,

CLINICAL PROFESSOR OF LARYNGOSCOPY AND DISEASES OF THE
THROAT, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK.

MR. PRESIDENT AND GENTLEMEN:—Pleasurable as it is to me to try and serve the Academy of Medicine, it is not without some hesitation that I stand here to-night, in the fear that I may be accused of an undue and immodest assumption of authority upon the special topics to which I shall, for a few moments, ask your attention. I reassure myself, however, with the reflection that our objects and aims are ultimately the same, and that the general practitioner and the specialist, each in his own department of work, and according to the opportunities granted him, strives to relieve the suffering, to minister to the comfort of man's estate, and to lessen the sum of human sorrow upon earth; and still further, as Hutchinson has told us, "that in the early stage of any department of knowledge, it is almost a matter of necessity that it should be in the hands of a few; but it is the highest privilege of those who thus devote themselves to reclaiming new spots of territory, to be able, after a time, to hand them over to the commonwealth, to prove that they are now cultivated and well worthy of annexation."

Our work is therefore inseparable. We must, of necessity, look to each other for assistance; each is able to contribute from his store of experience—an experience gained by earnest, manly labor in that particular field to which inclination, opportunity, or special paths of study have led him—something which will be of value to his fellows,—the elder to the younger, the younger specialist to the older practitioner.

With these views, and in this spirit, I have selected for your consideration and discussion, at the suggestion of our honored President, a topic which is taken from that special field in which I am a worker, and which I believe can be made of practical interest to both of us.

Although it is not long since laryngology has taken its place with medicine and surgery as a special study, it has, in that short time, shown in all its departments a great and rapid progress. It to-day contains much that is new and valuable. More ample and more accurate are the means at our disposal for diagnosis in affections of the upper air-passages; more extensive and more detailed is our knowledge of the healthy and morbid changes which take place in the larynx, and in the enunciation of its pathological laws. New remedial agents have been discovered, and old ones more scientifically used. Means have been rejected which are proven to be inert and useless, though transmitted to us surrounded by the halo of age and tradition. A broader view is taken of the treatment of many throat affections—notably of those of which I shall speak to-night. Routine and empirical treatment—the "do-something" therapeutics of Williams—have been dis-

carded; and finally, laryngeal surgery has been perfected, and endo-laryngeal means attained brilliant results—a perfection and results which almost tempt us to say, with Erichsen, "that we believe we have reached something like finality in the manipulative art of surgery."

I propose, then, asking your attention to some of these newer points in one branch of the art—that of the diagnosis and treatment of some of the commoner tonsillar affections; and, while I naturally strive to avoid an apparent position of didactic pretension, to which I cannot feel that I am entitled, to offer a few suggestions which may, perhaps, be profitably utilized by those in general practice.

Starting with the trite maxim, that before we can act, we should learn to see; to see in order to foresee; and to foresee in order to modify and direct, I desire to deprecate the old method of a tea-spoon handle and an imperfect and fitful light, and to call the attention of the practitioner unfamiliar with its use to the valuable assistance rendered, in any pharyngeal examination, by the large and well-made concave forehead reflector of the laryngoscopist, and the use of artificial illumination. It renders him independent of time. Night is as day. It allows of his examining his patient in any position and in any place without disturbing him; the fauces of the frightened child in its mother's lap, of the bedridden adult, of the patient unwilling or incapable of moving at the dictum of the surgeon, and of the sufferer unable to more than slightly uncloze his jaws, can severally be quickly and thoroughly examined; while the extent and accuracy of the picture obtained will be such as to surprise the practitioner unversed in the use of these methods, and richly repay him for any time or trouble expended in unlearning old ways and acquiring new.

A tendency, which is to be deplored on diagnostic and therapeutic grounds, exists in the practice of many medical men to be less particular than it seems to me they should be in the *nomenclature* of tonsillar affections; to class all inflammatory diseases, whether within the tonsillar gland, or of the tissues in its immediate neighborhood, as one and a similar affection. "Quincy and ulcerated sore throat" are terms which with them cover the whole ground; while, on the other hand, the public are too prone to speak of every throat affection as "diphtheritic," a conceit in which, I regret to say, they are encouraged by a certain class of practitioners.

This looseness of nomenclature can but lead to confusion, misconception, and unscientific treatment. As a matter of fact, the inflammatory conditions to be named, both in their causation, seat, symptomatology and treatment, are as widely different as in like conditions elsewhere. And it does not appear to me, therefore, that the differences of which I shall speak can be said to be only of amount and degree, and that they involve no true pathological variety, as has been asserted.

Inflammation may attack either the parenchymatous tissue, or the secreting tissue of the tonsil, or the tissues about it. This is our classification. In the former case, if acute, it will proceed to the formation of true tonsillar abscess, or so-called quincy; but let me state at once, that such a condition is comparatively rare, and that abscess of the tonsil, so regarded, is more often an inflammation and suppuration of the tissues at the base or in front of the gland, but with all the distressing symptoms, and the same general appearances, as in the true affection. Verneuil has shown us that the tonsil does not ad-

* Paper read before the New York Academy of Medicine, Dec. 5, 1879.

here very firmly to the groove, if it may be so termed, which lies behind it; and that when tumefied by inflammation, it bulges out between the anterior and posterior pillars of the soft palate, and moves backward and forward with every movement of deglutition. This mobility, he asserts, is one of the principal causes of the formation of abscess. The gland being continually displaced, a serous bag forms in the connective tissue, which stretches between both pillars of the fauces, and occupies the bottom of the groove in which the tonsil lies. In this serous bag the purulent gathering is formed. Such an abscess—and bear in mind, if you please, that it is the one commonly met with in practice—is always deep-seated, and cannot, therefore, be easily reached by the knife, as an incision directed in a straight line toward and through the tumor, which the tonsil forms in the isthmus of the pharynx, would not be able, under ordinary circumstances, to open it.

The practical import of this observation is at once apparent. To incise such an abscess, it is necessary to cut through the anterior pillar of the fauces; for this pillar—enlarged, oedematous, and protruding—forms the anterior wall of the abscess. In this locality, even as high up as near the junction of the hard and soft palate, I have repeatedly operated with success, and, I must add, have in some instances experienced that mortification which every surgeon must feel who cuts for pus and does not obtain it. The reason, after one or two mistakes, was clear to me. The swelling of the tissues in the locality just described puts upon the stretch the musc. thyreo-palatinus, in the anterior arch of the soft palate; and the musc. pharyngo-palatinus, which lies to the outer side of it, in close relation to the tense lig. pterygo-mandibulare; between the two is thus left a small, triangular, soft spot, palpation of which conveys to the finger a decided sense of fluctuation, which is very deceptive. I therefore call your particular attention to it.

When the inflammation occurs in the secreting tissues of the tonsil, it rarely, if ever, on the other hand, develops an abscess, and its character may be more distinctly expressed by the terms tonsillar catarrh, acute catarrhal tonsillitis, follicular tonsillitis, or caseous tonsillitis, by Bouchut. Here we deal, pathologically, with an inflammation of the membrane lining the crypts of the tonsils—an ordinary affection, one met with in every-day practice, presenting to the eye the familiar appearance of enlarged, brightly reddened, and vascular tonsils, encroaching materially upon the faucial opening, perhaps occluding it, their crypts blocked up by a thickened, cheesy, and opaque secretion, and appearing upon the surface of the tonsil as disseminated spots of a white or yellow color. Add to these appearances a cutting soreness on deglutition, marked constitutional disturbance and prostration, with elevation of temperature and short duration, and the picture is complete. I have drawn it mainly to call your attention to some of the difficulties in the way of diagnosis which may meet us, in such cases, at the very outset.

The commonest mistake made is in terming the affection an "ulcerated sore throat," or an "ulceration of the tonsils;" and the collections of morbid secretion at the mouths of the crypts resembling, as closely as they do, little ulcerations, the mistake is perhaps a natural one. The term certainly has taken a strong hold upon the laity, and I may perhaps justly add, the profession, if we may judge from the frequency with which we hear of "ulcerated sore throats."

As a matter of fact, true ulceration of the tonsil is extremely rare, except in syphilis; and recognizing this fact, we are in a position, without hesitation, in the vast majority of cases of so-called "ulcerated throats," to pronounce, even without examination, in favor of a simple "catarrhal tonsillitis;" if we except the "herpetic tonsillitis" of recent French writers—an affection in which the tonsil is more or less covered with small vesicles, either isolated here and there, or in groups, with turbid contents and surrounded by zones of inflammation. Soon the vesicles rupture, leaving small excoriations—the so-called "ulcers." There can be no doubt as to the nature of the diagnosis, when, as occurs in many cases, a herpetic eruption occupies the corners of the mouth at the same time, or the inner surface of the lips, cheeks, or tongue.

The liability of confounding the milder pharyngeal manifestations of diphtheria—the "catarrhal diphtheritis" of Oertel—with the affection of which we are speaking is not to be overlooked; and that the danger is a real one, and one that needs to be provided for, is, I think, proven by the prevalence of—wrongly so-called—"diphtheritic sore throats." May I trespass upon your good-nature for one moment, while I allude to the, in many points, striking physical similarity of the two affections?

Have you not often seen, in these cases of follicular tonsillitis, an aggregation of the grayish-white pulaceous masses which block up the mouths of the diseased and occluded crypts to such an extent that not only is an apparent, but a real pseudo-membrane formed—one thickened by the products of cellular growth and decay (fungi and bacteria), and rendered coherent by the inflammatory hyperplasia?

A membrane which may occupy only part of the tonsillar surface appears here and there in patches, or, more rarely, still not infrequently, cover them entirely. The appearance is not an unusual one, and the attendant constitutional disturbance well known. Compare both with the description given by Oertel of the physical appearances in "catarrhal diphtheritis;" the results are interesting and instructive.

He tells us that the first thing noticed in the inspection of the mouth and fauces is "a vivid red color and moderate swelling of a part of the mucous membrane, while the rest of it appears perfectly normal. Frequently only one tonsil and the adjoining arch of the soft palate are attacked. The submucous tissue usually swells but little, and the same is true of the glands and tissues lying still deeper, so that while the enlarged tonsil may project somewhat into the isthmus, its volume is not increased, as is the case in parenchymatous inflammation. When this simple inflammatory process has continued for a short time—perhaps only a few hours—small grayish-white or whitish-yellow spots appear, arranged in a few groups, either separated from each other by a narrow space, or lying close together, sometimes even merging one into the other."

In the greater number of cases belonging to this class, the exudation is confined to one or the other tonsil, and only in rare instances gives rise to marked constitutional disturbance.

Oertel acknowledges, then, that the catarrhal form of diphtheria is generally recognized with difficulty, because of its apparently insignificant symptoms, and that other diseases, notably catarrhal angina, are frequently mistaken for it.

Appreciating the danger of confounding the two affections, the differential diagnosis may be made by the circumspect weighing of all the diagnostic

points—in one case danger of infection, in the other none—by a careful review of all the variations, in the general and subjective symptoms, especially a close ocular inspection, when the membrane will be seen in one case to be adherent to and upon, the surface of the tonsil, in the other non-adherent and made up of the yellowish, sticky mass which issues from the follicles. Again, the appearance of the parts when the exudation is removed, in the one case, with a slightly abraded surface beneath it; in the other, the mouths of the open follicles, into which the probe can be passed. Finally, a thorough physical examination, and a microscopical investigation as to the true nature of the membranous patches, if it be deemed necessary. But, even with this care, in sporadic cases a definite distinction is often extraordinarily difficult.

If this great similarity that I have tried to show exists between the two affections, will it not explain the wonderfully good results obtained by some practitioners in their treatment of diphtheria, and the brilliant statistics of cure which are from time to time given us?

Having raised this interesting, and, at the same time, practical point, I leave it for your discussion.

The infective nature of even the milder forms of diphtheritis has been one of the strongest and most reliable points, in its differentiation from such tonsillar affections as resemble it. But, that even this comforting diagnostic refuge is to-day denied us, the recent description, in the English journals, of an epidemic form of *communicable sore throat*, affecting the tonsils alone, will show.

Fox, whose opportunities for becoming acquainted with true diphtheria have been large, has summarized the principal facts brought out by his study of this "spreading quinsy," as it has been called. He tells us that it consists essentially of an inflammation of the tonsils, which extends more or less into the pharynx, and sometimes to the neighboring submaxillary and other cervical glands; that, although yellowish spots are sometimes seen on the tonsils from an accumulation of mucus in the follicles, no ash-gray, tough, leathery membrane (characteristic of true diphtheria) is ever seen during the course of the disease; that the individuals affected present an anæmic appearance, and that the disease is generally communicated from one to another through the medium of schools, etc. Unlike diphtheria, it is but seldom fatal, unless those who suffer from it have long been exposed to most unwholesome conditions. It is never followed by paralysis of sensation or motion, as diphtheria often is.

It is not accompanied by albuminuria; the pulse is full, as is noticed in cases of acute quinsy; whereas in true diphtheria it is small and feeble, indicating great prostration. It may prevail in a district where no true diphtheria is known.

The average duration of the disease is about ten days; and finally, it is essentially a filth disease, being always associated with some organic impurity of air or water. Overcrowding, saturation of soil around dwellings with slop-water, and employment of bad water for drinking purposes, are the most common insanitary conditions found in connection with infected houses.

The only points of difference, then, you will notice, between the "spreading quinsy," as it was first called by Clarke, and the ordinary "catarrhal tonsillitis," are that it is *communicable*, that it is *accompanied* by a certain amount of anæmia and depression, and that the *mortality* from it is probably slightly greater. Between it and "catarrhal diphtheritis" how narrow is the diagnostic line of demarcation!

I am not aware that such epidemics as are described as occurring in England, by Fox, Vacher, O'Connor, Thorne, Bird, and others, have occurred in our own country; but the possibility suggests itself to me that some of our milder epidemics of diphtheritis may, in reality, be but the disease described by them. The point is a new one, and will bear further investigation.

Who will not recognize the picture of the next affection to which I shall ask your attention? It is not a recent one; Hippocrates has described it. It is easily diagnosed: an inflamed, sensitive, discolored, swollen, and irregular tonsil; a relaxed and cedematous uvula; inflammation and tumefaction of the palatine folds; an angry-looking tumor, protruding far into the mouth and pharynx. A disease about the progress and prognosis of which there exists but little difference of opinion, the evils of acute abscess of the tonsil, be it parenchymatous or retro-tonsillar, are not restricted to uncertain appearances and to slight symptoms, nor are the sufferings and dangers immaterial.

A patient, passing his days and nights in misery, feverish, restless and apprehensive, prostrated to a degree out of all proportion to the severity of the local lesion, with intense pain and local distress, unable to open the jaws without effort, unable to swallow without fear and regurgitation; a loaded, creamy, and swollen tongue; foul breath, salivation, muffled articulation and impeded respiration; cold perspiration, pallid surface, anxious expression of countenance, and a mental depression greatly increased by want of sleep, and occasionally resulting in delirious wandering. To the practised observer, this description, incomplete as it is, will tell the tale; he will probably have arrived at his diagnosis on hearing and seeing the patient's attempts to describe his symptoms.

Is it necessary for me to allude to the differential diagnosis? Cannot diphtheritis, follicular, or phlegmonous tonsillitis, syphilis and cancer, be readily eliminated? If not, my picture has been but poorly drawn. Neither is it requisite, at this time and in this place, that I should enter into the pathology of tonsillar abscess further than I have done, nor dwell upon its symptomatology. Other and more practical questions await us. From among these I have selected the ones of predisposition, preventive and direct treatment, and finally, its dangers, for your consideration.

The best and most recent writers are in accord in assigning to the dæthrous or arthritic diathesis a strong predisposing element in the production of single or recurrent attacks of quinsy. Browne tells us that there need not necessarily be, though there often is, corroborative evidence either in the family or personal history of the patient; and the fact stands, that the disease is most prevalent at those periods of the year and under those atmospheric conditions which are most favorable to rheumatic exacerbations. The widespread use of guaiacum as a specific is probably based upon, and certainly lends color to the view. If it be true, an important point is gained. Recurrent attacks each year, or often at shorter intervals, indicate specially, and prominently urge, the importance of constitutional treatment, rather than simple attention to the local evil.

A strumous constitution has been advanced by certain authorities as a predisposing cause—a diathesis which renders the patient liable to inflammatory attacks similar to those frequently seen in the lymphatic glands. Browne holds, however, that this view always requires the qualifying admission that in

tonsillitis exposure to cold is an exciting cause, whereas catarrh plays no important part in the production of ordinary strumous glandular affections. As a rule, then, the affection will be found to be associated with some disordered state of health, predisposing and rendering the tonsils susceptible to cold, or due to some constitutional disturbance or diathesis. The therapeutical deduction is obvious.

I have already stated that a patient who has once suffered from quinsy is most liable to suffer again. One attack, unfortunately, purchases *no immunity*, and the question naturally arises as to what preventive treatment should be adopted. The question, I believe, can be readily answered. If there is chronic inflammation and enlargement of the tonsils, excision should be performed. In cases where the tonsil, though diseased, is too small for excision, except on occurrence of *acute* inflammation, amputation at that time. This proceeding may seem barbarous, but it is in reality merciful. The disease is at once cut short, abscesses that may have formed are removed or laid open, and the chance of further recurrence is almost *certainly* avoided. I say *almost*, for, unfortunately, ~~we are~~ *we are* obliged to confess to the anxious patient that recurrent attacks may, it is true, but rarely, occur in the stump of the tonsil, or in the tissues in its immediate neighborhood. As a contraindication, it is only fair to state that Hamilton has seen the latter operation terminate fatally in a child, from an extension of the inflammation to the larynx. Such cases must, however, be exceedingly rare.

No treatment, local or general, with which I am acquainted, will with certainty prevent recurrence; but both, with avoidance of exposure, attention in matters of diet, climate and hygiene, care on the part of the patient, and the surgical means just indicated, will do much to accomplish this desirable end.

I approach the comprehensive subject of the direct treatment of the attack with considerable misgiving as to my ability to handle it within the restricted limits of this paper. So much has been written, so varied are the views, and so strenuously are they upheld as to the proper remedial means; so highly are some remedies vaunted, so deeply are others condemned; so firmly rooted are the prejudices of some, and wavering the opinions of others, as to what is best for the patient and his disease, that I can hardly attempt even a fair summary of them, and must, therefore, at the risk of laying myself open to the charge of dogmatism, record my personal views and preferences, offering them in a candid spirit for your criticism. To prove my assertion that general mistiness and vagueness exists in many quarters as to the treatment of quinsy, allow me to recall to your recollection the reports published some little time since in the *London Practitioner*, in answer to questions as to the treatment of quinsy, addressed to physicians throughout, I believe, the civilized world. My quotations will be short. To the circular letter 112 replies were received; among these was one coming from Norway, and later are eight from the United States.

The very first question, as to what drugs the person addressed generally prescribed in the disease, demonstrated that the treatment was far from uniform. The widespread belief in the efficacy of guaiacum in tonsillitis was evinced by its having the largest number of supporters—namely, 36. Next followed chlorate of potash, with 30—11 of whom prescribed it in combination with nitrate of potash, and 8 with perchloride of iron. Aconite was third on the list, with 27 supporters, two of whom gave it with

belladonna. These three, then, are proven to be the chief remedies in use, being given in 83 per cent. of the whole returns, or by 93 out of the 112 who replied.

Next, but at some distance, came saline purgatives, which found favor with 19; then saline diaphoretics, advocated by 11 practitioners. After these came quinine, used by 6, while 4 more gave it with iron. With 5 gentlemen the sulphate of magnesia, with tartarized antimony, formed the favorite measure. With others, mercury with belladonna and the sulphide of calcium, was prescribed. Finally, hydrochloric acid with cinchona, sulphate of magnesia with sulphate of iron, *actea racemosa*, Dover's powder, carbonate of baryta and opium, belladonna and chloride of barium, sesquicarbonate of ammonia, and last, and perhaps not least, mercury with turpentine.

Will it be improper for me to add to "this goodly array of weapons with which to battle the disease," the Chinese treatment of the affection. It renders complete the subject. The remedy is a soft stone; it is expensive, being worth twenty times its weight in silver; a dose of twenty to thirty grains of this in powder is said to be wonderfully efficacious. The story goes, that when a monkey is wounded, the animal, from natural instinct, picks out the proper medicinal herbs, masticates them, and applies them to the wound, so that successive layers are in this way laid on so as to form a mass. In time the wound heals, and the lump of dried herbs falls off. It is then picked up, found to possess peculiar virtues, and is used as above. As to its vaunted powers, I am in no more of a position to judge than of many of the remedies of which I have just spoken.

The same diversity of practice among medical men is well seen in the answers given to the question as to the resort to surgical interference. *Scarification*, to arrest the advancing tonsillitis, had 21 supporters, out of the 112, who preferred it to any other form of local treatment. With some the practice was deprecated. As to the opening of the abscess, it found 62 advocates, of whom 4 resorted to it as soon as possible; while 13 stated that they almost *never* used the knife. In no less than 17 answers, it is stated that it is *never* required, while 4 asserted that they had never seen an abscess form since they adopted the guaiacum treatment (fortunate individuals whose success is certainly to be envied!). *Finally*, curiously enough, in the eight answers received from the United States, guaiacum was never mentioned in any form; the favorite remedy was quinine.

My own view, in which I am sure many will coincide, is that an abscess of the tonsil, when its development is once assured, should be treated on exactly the same principles as an abscess in any other part of the body. It is at best doubtful whether any treatment can effectually *abort* the inception of the disease; its course can, however, be shortened. Nitrate of silver and guaiacum are perhaps the favorite abortive means which are to-day used. But is their efficacy demonstrated? The use of silver is certainly attended with one disadvantage—it produces much local discomfort; leaves a most nauseous taste in the mouth; gives rise to constant hawking and spitting, until the superficial epithelial sloughs occasioned by its application are released or removed from the inflamed membrane. With Durham, I have never seen any beneficial, or even *satisfactory* results, follow its use. Guaiacum may be of value, in the very early stages, in producing resolution. This much I am willing to admit—not from personal experience, but from the weight of authority; but when symptoms

of suppuration are manifest, it is *worse than useless*. Treatment, then, apart from constitutional remedies or requirements, should be based upon the principles of constant heat, moisture, and mild counter-irritation. Locally, the frequent inhalation of *steam*, medicated or not, and from any form of apparatus most convenient, just as frequently as the strength and feelings of the patient will allow; the frequent *spraying* of the throat, always grateful to the patient, with warm water alone, or slightly aromatically medicated with cologne water, and hot applications made with spongio-piline, externally over the affected tonsil, and constantly renewed, are all measures of decided comfort and great utility.

I am not sure that *medicated* sprays (the best way of making applications) other than warm ones of glycerine, of carbolic acid (1—40—60), or salicylic acid (1 to 100), are of service. Gargles, stimulating, astringent, or indeed of any description, are not only *useless*, but irritating, as their proper use entails too much pain, and the fatigue they cause the patient far more than counterbalances any good that they do. The patient may hold warm solutions of carbolic acid, borax, etc., in water and glycerine, or even simple warm water, in the mouth from time to time, and *without efforts* at gargling, constantly bathe the tonsils by throwing the head backward. Externally, severe counter irritation, leeching, and other depletive measures, are to be *condemned*. The disorder is one which calls much upon the strength and vital powers, and it seems to me that it behooves us to husband the forces rather than diminish them by heroic treatment.

The difficulty in swallowing being great, the less the patient is "pestered with physic, the more comfortable will be his day." A time-honored custom leads us to believe that an emetic will render efficient service early in the attack. A non-depressant should, to say the least, be selected; a saline laxative can do no harm, followed, while the fever and pulse are high, by aconite, perhaps in combination with, if the indications exist, morphine, tartar emetic, or guaiacum; as the case then progresses, stimulants and tonics are required in turn.

I shall now be asked whether I favor scarification and early surgical interference with the abscess.

Every sensible practitioner studies the feelings of his patient; every good surgeon avoids the uncertain or unnecessary use of the knife; but so marked is the suffering, if the tonsils be much swollen—so great is the relief if they be efficiently scarified—that to my mind no doubt can exist as to the propriety of the operation. It is not very painful, sometimes comparatively painless, and the relief that it affords to existing pain and tension is often immediate. Cohen holds that the facilitated circulation in the parts promotes the prompt resolution of the inflammatory process. The incisions certainly sometimes open abscesses in the interior of the tonsil, the existence of which, though conjectured, could not have otherwise been determined, and in all cases open up a path for the escape of matter without waiting for the slow process of nature.

Equally clear, I hold, is the duty of the surgeon when his finger—and I know of no occasion in the treatment of throat affections where a "tactus eruditus" is more requisite—has told him that suppuration is already evident. There can be no doubt as to the propriety of incising the abscess. The surgical principle involved holds good here as elsewhere in the body, and the abscess once incised and its contents discharged, recovery is prompt.

In either of these little operations the surgeon will remember the requisite precautions when any pointed or cutting instrument is used in the region of the tonsil. I need not dwell upon them.

In the treatment of all cases of quinsy there must be a certain amount of anxiety in view of the serious complications possible (but, fortunately, not probable), and therefore some reservation in our prognosis is necessary. Cases of death from the disease have been reported. According to the mortality returns of England and Wales, 400 persons die annually from the effects of it; but this surprisingly large percentage is probably due to errors in diagnosis, or to an association of the affection with more serious diseases, especially exanthematous conditions. Very rarely, as in young children, death might occur from inanition. Browne has seen a case of quinsy in a child of ten, but the affection rarely develops before puberty. If both tonsils are affected at one and the same time, as is occasionally seen, the case is a *serious* one, and may terminate fatally by suffocation if respiration is not relieved by excision of the glands or the performance of tracheotomy. Such an instance is reported in the *Lancet* for 1875. Porter tells of a case of this kind in which a soldier, unable to procure immediate assistance, passed a narrow tin tube between the swollen glands and kept it from slipping down his throat by a string, one end of which he tied to his teeth. Tolerating this rude apparatus for some hours, he reached a surgeon, who found it firmly grasped by the opposing tonsils. Free use of the bistoury reduced the tumefaction, when the tube was removed and the patient recovered. I myself have been called from bed to relieve the urgent dyspnoea caused by swollen tonsils blocking up the pharynx of a child, and have done so by at once excising both. Laveran gives us the details of a case which he lost through an extension of the inflammatory process to the larynx, with oedema of the glottis. In a like instance, Puech saved a patient by a tracheotomy, and others are upon record. Among the rarer complications, cases of suffocation from the sudden breaking of the abscess and discharge of its contents during sleep, into the larynx and trachea (Stokes, Littlejohn, Watson, and Wagner), ulceration into the maxillary or carotid artery, with fatal hemorrhage (Norton, Ehrmann), and, finally, paralysis of the soft palate and contiguous parts following tonsillitis (Putnam, Hardy), and death from severe cerebral disturbance, to which the autopsy gave no clew (Wagner), will all be found in the literature of the affection. Fortunately, they are altogether exceptional. It has probably been vouchsafed to but few of us, if any, to see them. The usual history of the complaint is that, directly the abscess has been opened or has broken, convalescence is perfect and speedy, the attack seldom lasting more than a week, except in those, for the patient, unfortunate cases in which numerous small and disseminated abscesses occupy the tonsil, or where one tonsil, having been affected and the attack having terminated by resolution or discharge of the abscess, the opposite gland, within a day or two, is attacked and proceeds the whole length of suppuration. The illness may, in such instances, extend to two or even three weeks.

I now return, for one moment, to our original classification of tonsillar inflammations, to say a word in relation to peri-tonsillitis and its treatment, as well as that of follicular inflammation. The former disease is well known to us all. It is a common affection, invariably acute, and rapidly runs its course

with distinctive appearances. We see it usually in front of the tonsil; its symptomatology, which is at best but slight, and its course, are too well known to you for me to dwell upon. The practical point is, *how best to treat it.*

Nothing will give you more satisfaction, greater relief to your patient, nor more quickly cause a resolution of the inflammation in either of the two affections named—if your experience coincides with mine—than the hourly inhalation of steam as hot as can be comfortably borne, associated with the use of a gargle of chloride of zinc, some two or three grains to the ounce. I purposely omit the mention of all other local remedies. Constitutional indications are of course to be met, as I believe, from experience, in the efficacy of those proposed, and feel sure that your experience will corroborate my endorsement.

Let me digress here for one moment, to say a practical word in relation to the use of gargles. The time-honored institution is not always of use—sometimes productive of absolute harm—and in probably a majority of cases gargling is an act incompletely, and therefore uselessly, performed. Is this not excuse sufficient for bringing so apparently trivial a subject before you?

I would suggest that to use a gargle three or four times daily, as is usually prescribed, is insufficient; and to use a large quantity, and for several minutes together, is not only *unnecessary*, but often *irritating*. A gargle should be used—proper indications existing in a given case—in quantity not more than a teaspoonful at a time, and not less than one dozen times a day.

Cohen tells us that the usual method of retaining a quantity of fluid in the mouth and keeping it in motion, between the base of the tongue and palate, by repeatedly forcing an expiratory current of air through it, while the base of the tongue is elevated so as to nearly touch the palate, is not only a *painful muscular exercise* in sore throat, but is *inefficient* in bringing the fluid in contact with anything else than the *palate* and root of the *tongue*. In order to reach the pharynx, the fluid must be submitted to the action of the constrictor muscles (often an impossibility with certain people), but be released without completing the last phase of the act of deglutition; a partial act of swallowing being made, therefore, and frequently repeated—a practice which is often difficult to acquire, and which is also, as I have said, painful in sore throat. A much better and less painful procedure is to bring the fluid in contact with the inflamed parts, by letting it flow upon them by gravity, as the head is turned to one side, backward or forward, as the case may be, so as to wash the various parts or portions of the surface in succession.

With this hint I take leave of this portion of my subject.

Moderate hypertrophy of the tonsils is so common an affection among children and even adults, so well understood are its ordinary subjective symptoms, and so easy of detection its physical evidences, so unimportant its results in a certain proportion of cases, and so little do many patients complain of pain or even discomfort, that it is, perhaps, too often lightly regarded, and passed by without serious thought as to probable or possible consequences, by the general practitioner. He ascribes the functional disturbances caused by their presence to other causes, or, more commonly, discouraged by his attempts at ineffectual local or general medication, undecided as to the disputed questions of causation and pathology, he pays but little regard to their active treatment. This,

in many respects, unfortunate view, is strengthened by an idea—common among the laity—that the affection is one that will continue, at best, but a few months or years, and that the patient, if a child, will, as it is expressed, “grow to the tonsils.” With such an idea they cannot see the necessity or utility of topical remedies, and are not willing to use more than the mildest placebos. The well-read physician, on the contrary, *should* appreciate how important are the pernicious effects of hyperplastic tonsils upon the general health, in the more extreme cases. He has, in his every-day practice, ample opportunity of witnessing the evil consequences which spring from their prolonged presence; of appreciating the importance to the physical welfare; of the conditions and results to which they give rise; and *should*, therefore, lend his powerful influence in deprecating this apathy and inactivity.

I propose to do my share in this good work to-night, by calling attention specially to these unfortunate but preventable results, as met with in the more extreme, but still not unusual cases; not forgetting, however, those of less importance, as far as the sequelæ go, in order that both classes, with their therapeutic indications, may be put fairly before you for discussion—the indications then agreed upon, to notice briefly the vexed question of surgical interference.

If a case presents itself of comparatively recent standing, the hypertrophy moderate and the tumor of soft and elastic consistence, with but slight symptoms, it cannot be questioned that constitutional measures, associated with local applications, will often eventuate in partial resorption. How otherwise can we account for the fact that the affection is comparatively rare after puberty, while exceedingly common in childhood? We certainly cannot imagine that all, or even a large proportion of the children so cured, have been operated upon for the relief of the malady. And even if this desirable result of absorption be not fully attained, success in arresting the progress of the growth so often crowns persevering effort, that the task is undertaken by both parent and physician with confidence, and the slight hypertrophy which remains, being stationary, offers no reason which makes it desirable to interfere further with it. Nutritious diet, then, with careful attention to general hygienic measures, the administration of oil, vegetable and mineral tonics, in depraved conditions, with remedies calculated to promote absorption of the hypertrophied tissue, if the general health be up to the normal standard, may be prescribed with safety and taken with evident benefit. Local applications of silver, copper, iron, iodide of zinc, tincture of iodine, and the like, may be entrusted to the parent or to the nurse, and frequent compression of the gland, as recommended by Quinart, “massage of the tonsil,” may, finally, assist the process of absorption. The above cases, if well chosen, certainly present a fair chance of success by the combined treatment; but how greatly modified must this statement become when the tonsils are *old*, much *enlarged*, and thoroughly indurated; of how much more serious import are the sequelæ to which they give rise; of how much more pressing importance the question of treatment.

Yeardsley, Shaw, Robinson, and others have clearly shown us the results which spring from the presence of such tonsils. The pultaceous secretion which blocks up the diseased follicles that honeycomb the hypertrophied glands, if long retained, becomes putrescent. The *consequences* are *apparent*. The air which the little patient breathes becomes tainted in

its passage to the lungs; the patient *lives* in an impure atmosphere. And, again, "the alimentary bolus, though lubricated in its passage through the bucco-pharyngeal opening, carries with it a quantity of morbid secretion, which rapidly sets up dyspeptic trouble, and, absorbed with the circulation, leads finally to unhealthy nutrition."

If the tonsils enlarge, as they commonly do, toward the median line, the faucial opening is often most markedly reduced in size; so much so in certain instances that mechanical dyspnoea is no unimportant symptom. Shaw, in the case of a child of three years, was obliged to perform a tracheotomy to save life. In others, and when the hypertrophy is exaggerated in this direction, deglutition is a fatiguing and occasionally painful process, though this pain seems, in many cases, to depend rather upon soreness in occasional attacks, of inflammation, to which such tonsils are very subject, rather than to mere alteration in shape and size of the glands themselves.

If the enlargement takes place downward, it may press upon the larynx and even prevent phonation. Such a case is reported by Thompson, and Cohen has known a tonsil to press the epiglottis down and to one side in such a manner as to prevent deglutition of solids, and give rise to suffocative attacks.

If in the upward direction, more or less obstruction of the posterior nares, and perhaps compression of the Eustachian orifices, preventing the renewal of the air in the middle ear, are but natural results, and hence the noisy and laborious oral respiration, especially during sleep, and the "throat deafness;" while, on account of the obstruction to free motion of the velum, and the mechanical obstacle to the emission of sound, the voice acquires that characteristic nasal and muffled *timbre*, almost diagnostic of the affection—the consonants *l* and *r* being specially difficult—the so-called *Paralalia literalis*.

I am prepared to admit that different opinions are entertained in respect to this "throat deafness." We certainly see constantly every conceivable variety of tonsil, both in extent and direction of enlargement, unaccompanied by deafness. Verrier, indeed, says that this very deafness can be caused by their ablation. Nor does the mechanical explanation that the enlarged tonsil blocks up the Eustachian tube seem to be always true, in fact. Holmes holds that the deafness in these cases is due rather to chronic thickening affecting the mucous membrane of the fauces near the enlarged tonsils than to the mere change in shape and size of these glands themselves; and in this view he is upheld by Hinton, Harvey, Forster, Pollock, and others.

All of the phenomena then, which I have described, may be present in adults as well as children, but several recent writers, notably Robinson, have shown us that there are others which relate almost solely to children—namely, "those which attach themselves naturally to arrest of development." A well-known physiological law, the latter tells us, is expressed in the following terms: Whenever an organ of the body, during its period of growth, is thrown into disuse or cut off completely from its normal function by some mechanical obstacle, *deformation* and *arrest of development*, followed by *atrophy*, are natural sequelæ. The application of the law follows. Owing to the passage of a less quantity of air through the nasal and oral passages in the condition under consideration, a diminished volume also enters the larynx and lungs. What is the result? The nasal passages do not increase in capacity proportionately with the

growth of the child, the alæ of the nostrils sink in, and this lack of growth affects, in an equal degree, the palatine arch. The alveolar process of the upper jaw is small and the teeth crowded. Consequently the olfactory and gustatory senses are restricted.

Still further, taking into view the great flexibility of the walls of the chest in children, it may be understood how they should be subject to imperfect expansion, with resulting insufficient supply of oxygen and imperfect accomplishment of the chemical blood changes, which take place in the lungs when the air is prevented by the above causes from fully distending these organs. In the act of inspiration, two distinct operations are performed—*first*, to create a tendency for a vacuum the thorax is expanded; *next*, the weight of the atmosphere causes air to enter the lungs. By the free admission of that air into the interior, a balance is established between the pressure of the atmosphere on the outside and that on the inside of the chest. Consequently, though the parietes may be thin and pliant, their movements can be performed with perfect facility.

But quite a different state may be expected. Shaw tells us when the expansion of the chest is unaccompanied with a corresponding dilatation of the lungs, take, for example, a case of hypertrophied tonsils, or one in which the larynx is closed, so as to impede the entrance of air; it is then obvious that if the thoracic walls *could* be expanded there would be nothing to counterbalance the weight of the atmosphere without. In such cases the chest is *incapable* of being expanded, or it is expanded *imperfectly*. To the best of their ability, the intercostal and external accessory layer of respiratory muscles elevate and widen the area included within the sphere of the ribs. The diaphragm also acts on the free margin of the chest, downward and concentrically, to increase the vertical diameter, *but* the pressure of the atmosphere interferes with their effect, and the pressure from without tells mostly upon the weakest parts of the compages. These are, unquestionably, situated in the line of junction of the costal cartilages with the ends of the ribs. Accordingly it is there that the chest is principally *indented*, and this indentation leads to the sternum being abnormally protuberant—in other words, to "pectus carinatum."

If a child, then, suffer from enlargement of the tonsils, may not the encroachment of these glands, upon the calibre of the air-tube, diminish it to such a degree that the air will not only enter with difficulty, but fill the lungs incompletely? and, is it not at least supposable, in such an instance, that the long continuance of the dyspnoea thus produced will, perhaps, imperceptibly, eventually lead to the chest becoming of the "pigeon-breast" shape? Dupuytren, Coulson, and Warren, support the theory, and Shaw, Pitha, and Forster, report such cases. On the other hand, Holmes asserts that deformity of the chest is *not* connected with hypertrophy of the tonsils more frequently than the known occurrence of both pigeon-breast and enlarged tonsils in weakly children would render probable.

Be the cause what it may, we do not need competent authority to tell us that the physical development and proper growth of children, thus affected, is seriously impeded; that their nutrition languishes and their muscular energy and activity are markedly diminished—the fact is self-evident.

Shall I add to this catalogue of evils the *lesser* ones, the half-open mouth of the patient, his noisy breathing and stupid appearance, his liability from an extension of the catarrhal process to inflamma-

tions of the larynx and nares, or the *greater*, which exist in the influence, that these hypertrophied masses upon the lateral walls of the pharynx exert by their close relations and pressure upon the large nerve-trunks of the neck? May we not have from this latter cause "that perversion of nerve-force in, or that changed condition of circulation about the pneumogastric nerves," which shall produce, as a result, nightmare, restless and broken sleep, with asthmatic difficulty of breathing, as shown by Bert and Traube, and even spasmodic cough, through their morbid influence upon the muscular layer of the bronchial tubes? Porter has recently reported two such instances in which the tonsil was, beyond question, the cause. And still further, is this influence confined to this portion *alone* of the air-passages? May not either spasm or cough, produced after this manner, also affect the larynx? Does not, moreover, the same cause hold good and true in regard to these enlargements exerting more or less pressure upon the large blood-vessels of the neck, thus imposing an obstacle to the ready flow of blood to the brain, and to its circulation in that organ?

I have, within the past year, excised the greatly hypertrophied tonsils of a child, eight years old, one of whose most marked symptoms was severe and distressing sick-headaches, without appreciable constitutional cause, coming on every three to four weeks, and lasting some three days. For three years they had thus been constant, and were increasing in severity with successive attacks. The removal of the tonsils caused them to disappear at once, and for nearly a year there has been no return. Cannot a possible, but even a probable relation be traced between the two conditions?

Explain it as you may, experience teaches us that the results of such compression are diminished nervous energy and retarded physical development.

I offer these interesting points for your consideration, and call your attention to an excellent and suggestive article upon further indications for the operation by Voss.

As to the treatment of the affection, there is, it seems to me, but little room for question. On one side stands the picture that I have drawn of its possible and actual results; on the other, their immediate relief, with speedy and permanent benefit, by a safe, simple, and almost painless operation. Can there be any hesitation in our choice? Is the fact not to-day evident to the minds of all, whose studies and experience fit them to judge, that "hypertrophy of the tonsils" is only to be satisfactorily treated by the one method of *excision*? Do we need to refer to the authority of the ancient teachers to sustain our position. Even before *Æteus* excision was recommended. The operation which *Asclepiades* designated under the name *homoiotome*, cannot, we are told by *Velpeau*, be any other thing, and finally, has not *Celsus* also described it in this phrase: *Si ne sic quidem resolvuntur, homulo excipere et scapello excidere*? I shall be answered that other methods of removal have their advocates. Granted; but has experience shown us that the scarifications eulogized by *Asclepiades* and *Celsus*, and in more modern times by *Berard* and *Fabre*, the ponderous chain écraseur of *Chassaignac*, the twisted wire of *Maisonneuve*, the difficult and dangerous ligature of *Siebold*, *Physick*, *Chevalier*, and *Bell*; the more modern galvano-cantery; the electrolytic or hypodermic needle; the inadequate and slow action of nitrate of silver; the painful Vienna paste; the London paste, necessarily repeated again and again; caustic potash, with its attendant high in-

flammation; chromic acid, and the like, all but descendants of the actual cantery used by *Mesué*, have given us practical or desirable results?

Nothing short of an actual slough can do good, if caustics are used, and no stimulating and incomplete application can offer much hope of acting upon such a structure. *E. Wagner* candidly states, that after patient, persistent, and regular applications, continued through months, he has never seen a true diminution in size, at most superficial ulcers.

Why, then, waste time, or inflict pain, by having recourse to useless local measures?

It is by no means requisite to remove the *whole* of the hypertrophied mass with the guillotine or tonsil bistoury, but the greater part certainly should be. *Hamilton* pertinently remarks, that if no good reason can be assigned why the gland *should not* be removed more fairly than is generally recommended, a sufficient reason can be assigned why it *ought to be*. When the whole or two-thirds of the gland is cut away, no more trouble is experienced from this source, but when one-half or one-third is removed, the balance does not generally disappear, and not infrequently it again enlarges. This remark does not agree with the experience of some surgeons who have written upon the subject, and who, believing that if one-third or one-half is cut away the remainder will soon disappear, do not think it necessary to remove more than half at any time. The best rule is to remove all of the tumor that projects beyond the anterior palatine fold, and for a little distance below that point. Its cells are thus well laid open, and what with their becoming emptied, the relief occasioned by the incision through parts chronically inflamed, and the subsequent contraction of the cut surface, by cicatrization, the portion that is left shrinks somewhat, and sinks into the side of the fauces, to give no further trouble to the patient. It is a mistake, however, as has already been alluded to, to count upon *too much* shrinkage. Cases have come under my notice more than once, where, the section made, the patient was told that the tonsil would *now* grow small by a process of cicatrization. *Too often* does the surgeon "lay this flatteringunction to his soul," to compensate for an incompletely and unskillfully performed operation. The guillotine—but an improvement upon the old *kiotome* of *Desault*, made upon the English pattern—will, I believe, answer the best purpose, in the largest number of cases. The double vulsellum and tonsil-bistoury may be rendered necessary by the peculiar configuration or location of the tonsil, or be preferred by some who follow the precepts of our forefathers—*Blandin*, *Amussat*, *Baudens*, and *Velpeau*—in the case of adults. The details of the method of using either I do not enter into, further than to say, or rather suggest, that in using the knife it is better, as recommended by *Louis*, but for other reasons, and *contrary* to the advice generally given, to cut from below upward; the large vessels enter the tonsil in its upper part, and are thus cut through last, while the knife passes away from, and not into, the collection of blood, which forms below in the mouth as the section is being made, and avoids wounding the tongue.

Hemorrhage—that *bête noir* of many practitioners—is usually inconsiderable, and soon ceases spontaneously. *Hamilton*, out of fifty-two operations, had an alarming hemorrhage in three only; *Voss*, who has had an experience of 347 cases, speaks lightly of its dangers, and *Gnersant*, in more than one thousand children, reckons no more than three cases out of this

number in whom formidable bleeding occurred. If considerable, it is probably due to the careless injury of the tongue or lips, or of the palatine folds, during the operation. This is a common cause and should be borne in mind. Again, by a too deep incision, the rich venous plexus, which lies at the bottom of the tonsillar fossa, may be opened into, as shown by Panas. Cohen holds that hemorrhage is more likely to follow the use of the guillotine, rather than that of the bistoury. My experience has been just the contrary.

Hemorrhage, to an alarming extent, may certainly occur. I, myself, have treated three such cases, and others are upon record where the carotid has been opened, and it has proved fatal—as Ténon, Portal, Burns, Béclard, and Barclay state that they have seen. The careful surgeon will, therefore, be always prepared for the unknown and, perhaps, abnormal distribution of the vascular supply, or for the special diathesis, which gives rise to bleeding.

How often is the physician—be he family practitioner or specialist—asked the question, Will not the patient always have a tender throat, one susceptible to cold and inflammation; one liable to diphtheria? or will the voice not suffer after the removal of the tonsils? And how satisfactory it is to be able to give a most emphatic answer in the negative; to assure the anxious inquirer that, in suitable cases, *nothing* but good can come of the operation.

If I have succeeded in convincing any wavering minds of this fact, or in strengthening the views of others upon this point, my *task is done*. In its execution, I am fully conscious of many sins of both omission and commission. Very much more might be said, for I have treated but a small part of "the thousand ills that flesh is heir to." The suggestions that I have made are tendered with a feeling of good will, and desire to aid in our common work. Would that they were more worthy of your acceptance.

NEGATIVE PRESSURE.

By G. M. GARLAND, M.D.,

PROFESSOR OF THORACIC DISEASES, MEDICAL DEPARTMENT, UNIVERSITY OF VERMONT.

ACCORDING to Webster, "science is literally knowledge, but more usually denotes a systematic and orderly arrangement of knowledge," and that anything may be *scientific*, it must agree with the rules or principles of science. All expressions, therefore, which are used by recognized authorities, and which contribute to a systematic and orderly arrangement of knowledge, are termed *scientific*. Among such expressions is the one which heads this article.

Negative Pressure is a term which one encounters constantly in German and French medical books. Among American and English writers it has met with less favor, and has, indeed, at times been exposed to public gaze as an object of ridicule by those who have failed to comprehend its meaning. At first glance, one might be misled to the inference that the term in question denotes a pressure less than zero in amount. Since we are unable, with the mechanical agencies at our command, to produce a complete vacuum, and since it is impossible to conceive of a pressure less than vacuum, it might be deemed absurd to invent a term for that which has no existence, and which can enter into no problem of mechanics. When, however, those who have endeavored to vilify negative pressure, and have de-

nounced its claims to a scientific character, once understand its correct usage, they will discover that they have been demolishing phantoms of their own imagination.

On referring to standard works on physics, we are taught that a force is defined by three factors, viz.: 1. The place or part of body to which it is applied; 2. The direction of its action; 3. Its magnitude. Each of these factors is independent of the others, and is treated by terms appropriate to itself. Now, the direction in which a force acts is that of the motion which it tends to produce, and Ganot* says: "When we are considering several forces acting along the same line, we may indicate their direction by the positive and negative signs." This use of the terms positive and negative is universal in treatises on physics, and it will be immediately obvious, from Ganot's definition of their meaning, that they do not refer in any way to the magnitude of any force. They are simply algebraic expressions to indicate, in a concise, systematic, and orderly manner, the direction in which one force is acting as contrasted with that of some other and opposing force.

Now, pressure is simply one manifestation of force, and therefore we should naturally expect to find the direction of its application expressed in the same formulae as in the case cited above. That pressure is thus expressed in physics may be learned from the following definition. In speaking of stress, Rankine† says that it is a general term to comprehend various forces which are exerted between contiguous bodies, or parts of bodies, and it is divided into three classes, of which the two following interest us at present:

"1. Thrust, or pressure, is the force which acts between two contiguous bodies, or parts of a body, when each pushes the other from itself.

"2. Pull, or tension, is the force which acts between two contiguous bodies, or parts of a body, when each draws the other toward itself. . . . In expressing a Thrust and a Pull in parallel direction algebraically, if one is treated as positive, the other must be treated as negative. The choice of the positive or negative sign for either is a matter of convenience. The word 'pressure,' although, strictly speaking, equivalent to 'thrust,' is sometimes applied to stress in general; and when this is the case, it is to be understood that thrust is treated as positive."

Once more I emphasize the fact, therefore, that the terms positive and negative, as here used, have no reference to the amount or magnitude of any pressure, but simply indicate the direction of application.

In comparing two forces which are acting in antagonism to each other, Rankine says that thrust is always treated as positive. When, therefore, one of the forces under consideration is the pressure of the atmosphere, as is the case in the various manifestations of the phenomenon of suction, this atmospheric pressure is always designated by the positive sign, because it is always exerted in the direction of thrust. All the other forces, which in a given case are acting in an opposite direction to that of the atmosphere, are considered negative, and the pressure which they exert upon any body, or parts of a body, exposed to their action, is termed Negative Pressure.

In the MEDICAL RECORD for September 27th, Dr. R. Van Santvoord, of New York, published a criticism upon Negative Pressure in which he shows that he has failed to understand the proper meaning of the

* Ganot: *Elementary Treatise on Physics*, sixth edition, p. 13.

† Rankine and Bamber: *A Mechanical Text-Book*, p. 116.

term. He says: "The idea of negative force is absurd. Force is essentially positive." I allow that it would seem absurd, as I have previously said, to speak of a force less in amount than vacuum, but I hardly think that Dr. S. is prepared to denounce all works on physics as absurd because they treat force as positive or negative according to the direction of its action. I am somewhat surprised that Dr. S. allowed himself to be so misled regarding the meaning of the term in question, because, in my introduction to "Pneumono-Dynamics," to which he refers, I declare emphatically that the term Negative Pressure "does not imply anything as to the magnitude or intensity of any force, but simply designates the manner in which that force is applied."

Again Dr. S. says: "To speak of negative pressure instead of atmospheric pressure is exactly equivalent to speaking of the rising of the sun when we mean the rotation of the earth." As every one knows, "the active agent in 'suction' is the pressure of the atmosphere outside of a more or less complete vacuum." This definition of suction is very true as far as it goes, but it is unfortunately incomplete in that it ignores other agents equally important with the atmosphere in the phenomenon of suction. When two bodies lie in contact with each other, the atmospheric pressure undoubtedly tends to retain them in that position. No manifestation of suction is possible, however, until an attempt is made to separate these bodies by forces which are antagonistic, or negative, to the atmosphere. Hence, if the atmosphere about a vacuum is one active agent in suction, the forces, chemical or mechanical, which create the vacuum are none the less essential. The atmospheric pressure drives up the column of water after the ascending piston, but it is the negative force, generated by the engine outside, which lifts the piston and thereby produces a negative pressure on the surface of the water below the same. In answer to Dr. S., therefore, I fail to see why we should not speak of negative pressure, or why we should speak of atmospheric pressure, when our object is to particularize the influence exerted by those forces which oppose the atmosphere. We can hardly expect to arrive at the satisfactory solution of any problem if we ignore a portion of the factors essential to the same, or if we deprive them of terms appropriate to their clear and orderly expression.

From what has preceded, the working of negative pressure in the function of respiration will be readily understood. With the first breath of life the lungs are placed in a condition of permanent expansion. They are held in apposition to the chest-wall by the internal atmospheric pressure. By virtue of their retractility they are constantly striving to collapse, and are therefore exerting a force in a direction opposite to that of the atmosphere within. Consequently in all German works on thoracic physics, this retractile force of the lungs is called negative, and it is said to exert a negative pressure upon the inner surface of the costal pleura. In a similar manner, during inspiration, the lifting force of the chest-wall is negative to the external atmosphere and exerts a negative pressure upon the lung.

Dr. S. concludes his criticism by the remark: "To call such a phrase 'scientific' is a singularly flagrant abuse of terms."

I have shown that the term Negative Pressure is recognized and employed by authorities on physics, and that it contributes to a systematic and orderly arrangement of knowledge, and these, according to Webster, are the requisites of a scientific term.

Reports of Hospitals.

BELLEVUE HOSPITAL.

NOTES OF PRACTICE AND PECULIARITIES IN TREATMENT.

LEAD-POISONING—GENERAL PARALYSIS—FACIAL PARALYSIS.

THE following case possesses a few points of interest relating to symptomatology:

A male patient, *et.* 40, who had been in the habit of drinking a glass of cider drawn from the pipe *early* in the morning, began, in June last, to feel a "weakness coming over his entire system." His occupation was that of a waiter, and he found it difficult to perform his labor. His appetite became poor, he began to lose flesh, he vomited occasionally, he had pains in the bowels, and his bowels became habitually costive. He improved somewhat, returned to his work in July, but in August he was compelled to give up his work entirely because "of a general weakness which was all over me" (*him.*) When admitted to the hospital he was unable to extend either little finger. He had a well-marked blue line along the margin of the gums. He now has general paralysis, most marked in the arms, which are almost useless, hanging from the shoulders like flails. He has some difficulty in closing his eyes firmly, is unable to wrinkle his brow only to a very limited extent, there is slight fibrillary contractions of the tongue, and a general appearance which indicates paresis of the muscles of the face.

This was the interesting point in the case, for it was undoubtedly one of lead paralysis, and yet, in most text-books, it has been said that one of the characteristic features of the general paralysis produced by lead is that it does *not* affect the facial muscles.

The deltoid muscles were markedly atrophied; the biceps and the triceps were tolerably well preserved. Fibrillary contractions were well-marked in the muscles of the forearm. Phonation and thoracic respiration were also somewhat affected. The muscles of the arm and forearm and hand did not react to the faradic current; but when the galvanic current was applied, *slowly interrupted*, with positive pole over the brachial plexus and the negative pole on the muscles, contractions could be produced. When the positive pole was placed on the muscles, and the negative over the nerve, no reaction took place. Galvanism, therefore, was used to stimulate those muscles which the patient was unable to move, and iodide of potassium was given internally.

A second case of lead-poisoning was seen in which *delirium* was a marked symptom. The blue line was well developed, and the general paralysis was marked. It was supposed that the lead was introduced into the system by drinking ale.

EXOPHTHALMIC GOITRE—GALVANISM—NOTABLE IMPROVEMENT.

A young woman who had exophthalmic goitre, had been under treatment by means of iodide of iron pills, iodide of potassium in syrup of wild-cherry bark, and galvanism. The goitre had diminished considerably in size, and the pulse had been reduced to 74.

DISPLACED HEART SIMULATING ANEURISM.

A note was made of this case chiefly with reference to a physical sign. A female patient, on inspection of the chest, exhibited a distinct circumscribed pulsation on a level with the second rib on the left side, and about two inches and a half from the edge of the sternum. The region around the pulsation was flat on percussion. Aneurism was a snap diagnosis. But on examination it was found that the left side of the chest was, by measurement, two inches smaller than the right; there was flatness on percussion over the entire left chest; bronchial respiration; voice-sounds and vocal fremitus.

The diagnosis was fibrous induration of the lung, with dilatation of bronchial tubes gradually taking place and drawing the heart upward, and producing pleural and pericardial adhesions, so that an impulse was visible at the base as well as at the apex of the organ. The apex was beating in the fourth intercostal space.

ACUTE ARTICULAR RHEUMATISM—ENDOCARDITIS—INABILITY TO RECEIVE SALICYLIC ACID—NON-ALKALINITY OF THE URINE, ALTHOUGH ALKALIES WERE ADMINISTERED FREELY.

A young woman was the subject of acute articular rheumatism, and her case presented certain points sufficiently interesting to be worthy of mention. The local symptoms of the articular affection were prominent, a large number of joints being affected, and then an especially distinct intra-ventricular murmur indicating endocarditis.

The urine had not been made alkaline, although the patient had taken alkalies very freely. Such cases occur occasionally. She was unable to continue the use of salicylic acid because of the unpleasant feelings which it produced in her head—headache and buzzing in the ears. When those symptoms first developed, the acid was stopped and they soon disappeared. The acid was renewed, and the same symptoms returned. The acid was again stopped and the symptoms again disappeared, and that was repeated three times with the same results, when the acid was discontinued entirely. There seemed to be no question that, in this case, salicylic acid was not well borne by the patient.

The patient was nearly convalescent.

ACUTE ARTICULAR RHEUMATISM—PREGNANCY—MISCARRIAGE—ENDOCARDITIS—HIGH TEMPERATURE—RECOVERY.

In connection with the above, mention was made of a case which possessed great interest because of the unusual factors it contained.

A young lady, who had never had articular rheumatism, was seized with the affection in the seventh month of pregnancy. Her temperature rose to 109° F. in the axilla. Premature labor took place, and she was safely and rapidly delivered. Unmistakable evidence of endocarditis also developed.

The treatment for the rheumatism was alkaline—alkalies being used freely until the urine was made alkaline.

For the extreme elevation of temperature, quinine in large doses was given, which was borne very well. Notwithstanding her recent labor, the entire surface of her body was also sponged for a great part of the time with cold water, the cold being used persistently and fully, and by the assistance of those two measures, quinine and cold water, the temperature was

reduced, and, perhaps, were the chief means of saving the patient's life.

GOUT NON-HEREDITARY.

A male patient, *æt.* 36, was suffering from his *third* attack of gout, affecting the great toe joint, occurring at intervals of *four* years, and all the attacks beginning suddenly in the night. No trace of hereditary tendency to the disease could be obtained. He had been accustomed to drink a quart of beer daily for twelve years.

SINGULAR AFFECTION OF THE PENIS.

The phenomena observed in two patients were the following: Short, involuntary jerks of the penis backward, in one case accompanied with excruciating pain; in the other not, until finally in one case the organ was so retracted that it appeared as a mere nub just at the arch of the pubis; in the other case the retraction was not so marked, but the jerking gave the patient great discomfort, although it was not positively painful. In the painful case the repetition of the attacks seemed to have a certain degree of periodicity. It never was, at any one time, a week from the first manifestation of the peculiar phenomenon before the attack was renewed, and would continue for days. The longest interval of rest was five days, and sometimes the patient had one or two terrific attacks daily. In that case, also, there was no assignable cause, except a contracted meatus urinarius. Suspecting that it might depend upon that cause—that it belonged to the neuroses assignable to that condition of the male urethra, the meatus was enlarged by incision to a size corresponding to the remaining portion of the urethral canal, but without effect. A second operation was performed, very free incision was made, and the trouble entirely disappeared.

In the second case, however, there was no pain, the meatus had a full size, admitting 31, and, so far as examination showed, there was no notable abnormal condition of the urethra, except a tenderness in the region of the seminal ducts, and for that he had been injected with a twenty-grain solution of nitrate of silver, five drops being applied by means of an instrument made for the purpose, as near as possible to the portion of the urethral canal into which the ducts empty. He had seminal emissions, and for those, in addition to the local application, he was taking

B. Ext. fld. ergot..... 3 ss.
Potass. bromid..... gr. xx.
M.

three times a day.

Both the spermatorrhoea and the peculiar phenomenon relating to the whole penis were improving. In the second case, there was an irritated condition of the rectum, which, it was thought, might have some bearing upon the difficulty relating to the penis.

ACUTE CIRCUMSCRIBED PYO-THORAX—PNEUMO-THORAX.

A patient was seen who gave a history almost identical with one already reported. [See MEDICAL RECORD, November 22d.] It was interesting from the fact that it was a case of acute empyema occurring in a patient who, apparently, was in good health at the beginning of the disease.

A female patient, *æt.* 39, a laundress, was admitted to the hospital November 13th, and said that she was never ill until three weeks previously; never had a cough, was able to work, etc. She suddenly became

ill in the night, had a chilly feeling, which was succeeded by fever, cough, pain in the left side, and vomiting. The next day she observed that blood was mixed with her sputa. Since that time she had not been able to work, although she had been able to be about her room, but suffered from pain in the side, shortness of breath, and her cough had continued. When admitted, there was evidence, from physical examination, of fluid in the left pleural cavity. An exploratory puncture was made with a needle, but no fluid was obtained. The breath was remarkably fetid; the sputa was muco-purulent, and, upon microscopical examination, was found to contain fibres of elastic connective tissue. This was an interesting fact—namely, the presence of elastic fibres in the sputa so early after the beginning of an acute pulmonary disease occurring in a healthy person. The urine contained no albumen. Since admission her temperature had continued elevated, and she had had two well-marked rigors. Breath constantly fetid. The hypodermic needle was introduced at intervals, but no fluid was obtained from the pleural cavity until the morning of the 25th of November, when a small quantity of pus was obtained that was extremely fetid.

December 2d.—The temperature continues elevated, and the patient has hectic. Breath offensive.

December 3d.—Physical signs still point to the presence of fluid in the left pleural cavity.

December 4th.—The visiting physician thought that a localized pneumo-thorax had been added to the pyo-thorax. It was supposed that perforation of the lung had occurred, but being unable to obtain much pus by aspiration, it was deemed best to wait for further developments.

Physical examination revealed a circumscribed area of flatness on percussion over the lower portion of the left side of the chest posteriorly, and at places within that area there were bronchial respiration and feeble bronchophony, and over other parts increased vocal resonance. These signs were regarded as evidence of solidification of lung around the circumscribed empyema.

The succussion sound could not be obtained, nor was there evidence, by percussion, of the presence of air in the pleural cavity; and yet, from the history of the case and the present symptoms relating to the expectoration, it was inferred that perforation of the lung had occurred. [The case mentioned in the former report alluded to was improving, the pulmonary symptoms having, in a great measure, disappeared.]

Pathological condition which gave rise to the symptoms.—The visiting physician gave what seemed to him to be the most probable explanation of the case, and it was, that it began as a small circumscribed pulmonary gangrene, situated near the surface of the lung, which excited a certain amount of pleuritic inflammation and adhesions before much escape of gangrenous matter took place. The chest had not been occupied by general empyema; hence the circumscribed empyema was not a sequel of that condition. It was presumed that the pleurisy was caused by the escape of decomposing lung-tissue, which produced an inflammation suppurative in character.

Indications for treatment.—The patient was not suffering from accumulation of pus in the pleural cavity, most of it being gotten rid of by expectoration. It was recommended to support the system by the use of tonics, good food, and a certain amount of alcohol in the form of wine or malt liquors. There was no indication for free incision through the chest-wall.

Progress of Medical Science.

NOTES ON THE POST-MORTEM EXAMINATION OF A CASE OF ATHETOSIS.—This is the title of a paper by Prof. Sydney Ringer, published in the *Practitioner* for September, 1879. The patient, when twenty-eight years of age, was struck down with right-sided hemiplegia, hemianæsthesia, and unilateral sweating. He subsequently recovered the lost power and sensation on the right side, but the unilateral sweating persisted. As he regained his power, the athetosis developed itself. He died of heart-disease in June, 1878. At the autopsy the brain was examined with great thoroughness. No trace of an occluded vessel could be discovered. Transverse, horizontal sections of the brain were made, but nothing was found abnormal until the lateral ventricles were laid bare, when the posterior part of the left corpus striatum was seen to be depressed and hollowed out; the membrane covering it was thickened. The left optic thalamus was decidedly smaller and flatter than the right. The soft commissure of the third ventricle was gone. Transverse vertical sections were then made through the rest of the brain, and they revealed a cyst one and a half centimetres in width and three centimetres in length, with its long axis in the antero-posterior direction. The cyst lay anteriorly in the corpus striatum—being situated in the posterior half of the lenticular nucleus, just without the inner capsule; behind it lay, outside and rather below the anterior, two-thirds of the optic thalamus; but the posterior portion of the whole left corpus was softened, and the thalamus was washed. The parts posterior to the cyst, and the spinal cord and nerves, presented nothing abnormal. The microscopical examination showed that the whole of the corpus striatum was much damaged, both the intra- and extra-ventricular portions (caudate and lenticular nuclei). Besides much atrophy and slight degeneration of the intra-ventricular portion, about one-fifth of the lenticular ganglion was destroyed, and was occupied by the anterior portion of the cyst. A few of the motor fibres (inner capsule) passing between the caudate and lenticular nuclei, and a greater number of the sensory fibres (outer capsule) passing from the filament, were destroyed. The corpus striatum was the part which suffered most, but the left optic thalamus was also washed, and a small portion of the lower and outer portion of this body was completely destroyed, whilst a considerable portion of the white matter external to the thalamus (sensory fibres of the outer capsule passing from the filament) was destroyed, and the part occupied by the posterior part of the cyst. Dr. Ringer attributes the athetosis in this case, not to the cavity, but to the damaged tissues in its neighborhood, whether in the optic thalamus, or the corpus striatum, or both. An interesting point in the case is the complete recovery from paralysis, both of motion and sensation—although a large hole remained in the most important part of the brain, and the tissues around it continued considerably damaged.

DIPHTHERIA.—Dr. W. Scott Marshall, of Centralia, Ill., is of the opinion that tracheotomy performed early in cases of diphtheritic laryngitis is of great service. He writes that he has never seen a case recover in which the voice was reduced to a whisper. His experience in this respect is not unique.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., Editor.

PUBLISHED BY

WM. WOOD & CO., No. 27 Great Jones St., N. Y.

New York, December, 27 1879.

THE UNITED STATES MARINE HOSPITAL SERVICE.

THE annual report of the Surgeon-General of the U. S. Marine Hospital Service has recently appeared, and with it the Secretary of the Treasury issues a new Code of Regulations for the control of this bureau. The two documents call attention to a medical organization whose rapid growth and promising future are likely to attract some interest from the profession.

The Marine Hospital Service, organized in 1798, was for many years only an unimportant bureau in the Treasury Department, under the care of clerks alone. With the twenty cents a month assessed from seamen, and with annual appropriations from Congress, it furnished medical relief to sick seamen, but, as a rule, in an extravagant and inefficient manner. Its work as a service had no professional status or scientific value. In 1871, under the direction of Dr. Billings, Dr. Woodworth, Dr. Stewart, and others, it was reorganized and put under the control of medical men. Since then it has been steadily improving in the efficiency of its work and the character of its officers, until now, if we may judge from the figures presented, it bids fair to outrank in some respects the other government services. The two facts pointing to this are: the steady increase in the number of patients treated and medical officers appointed, and the very large number of seamen, amounting to not less than 150,000, who come under the medical care of the service. With this field, which is constantly enlarging, for the medical officers to work in, the profession may expect of them some contributions of value to medical and surgical science.

The statistics given in the Surgeon-General's last report show that 20,922 patients were treated in the year ending June 30, 1879. Only about 15,000 were treated in 1877. The number of medical men in the service is between thirty-five and forty, not including

seventeen acting assistant surgeons. These officers are appointed after a severe competitive examination, seventy-eight per cent. of the applicants having in the past year been rejected. This per cent. is somewhat smaller than that of the army, which was in 1878-9 about eighty-six per cent. But it is large enough to show that merit is essential to an appointment in the service. The positions held by the medical officers are those of assistant surgeon, passed assistant, and surgeon. Promotions are made after a certain length of service, and after passing examinations. The pay is, we believe, about the same as that of the army and navy, but, from the character of the service, advancement is more rapid.

The professional work done by this service must necessarily be of a peculiar and somewhat limited character. One-fifth of the patients suffer from chancre and syphilis, while there is an equal per cent. of malarial diseases and a somewhat smaller proportion of rheumatic cases. Attention to the hygienic surroundings of seamen is naturally a matter of concern, and this as well as questions of quarantine have already engaged the attention of the Surgeon-General. In June last an order was issued directing the medical officers of the service, when called on to do so, to make physical examinations of seamen about to ship. A considerable number of examinations have been made, with the result of finding from five to ten per cent. of those proposing to ship, physically unfit to do so. This has fully justified the undertaking, and it will, as it grows, undoubtedly secure an immense benefit to the seamen and the shipping interests, as well as furnish valuable scientific data.

The work of the Marine Hospital Service has so far been more practical than scientific—not many of its contributions to medical literature having yet, in the latter respect, reached a high standard. Its adoption of the metric system, however, gave a great impetus towards a rational method of measurement, and there have been papers upon venereal diseases, and yellow fever and sanitation, of considerable value. Matters of public health and quarantine have now been relegated to the National Board of Health, but in the history of public, and especially national sanitation, the work of the late Surgeon-General Woodworth will have a prominent place. It will be expected that the question of how to check venereal disease and how to regulate prostitution should receive attention and help from officers who deal with a class that suffers more than any other from its ravages. Such attention has to some extent been given.

It is in these two directions of public sanitation and of the management of venereal disease that the Marine Hospital Service has so far been especially prominent. But it will be strange if, with the field it has before it, and with what is, for statistical purposes, one immense hospital treating 20,000 cases a

year, a wider and higher range is not given to its usefulness.

The publication of a revised code of regulations indicates a stage of more perfect organization and discipline. The general tenor of those regulations is, we believe, somewhat similar to that of the army. They aim to secure stricter discipline and more efficient methods for conducting the work of the service. While they will undoubtedly do this, they appear to be exceedingly elaborate and minute; and, if any criticism were made, it would be that they attempted to pin things down almost too closely. Thus, we can admire the moral elevation which inspired paragraph 93, forbidding all profane swearing among officers and employees; but it has generally happened that attempts to enforce this portion of the decalogue by statute have had in them more of beneficent intention than practical effect.

A new feature is a provision for boards of inquiry and discipline. Before these, delinquents will be brought, tried, and, if necessary, disciplined.

The medical officers have heretofore been embarrassed and hampered in their medical work by the great amount of clerical work which fell upon them. Much of this, it is stated, will be removed under the new regulations.

Under their workings, therefore, which are likely to prove, in general, excellent, with an increasing number of officers, hospitals, and patients, the future work of the Marine Hospital Service will be watched with much interest.

THE LUNACY REFORM MEETING.

THE public meeting of citizens to discuss the subject of lunacy reform was held on Dec. 18th, as announced, and was very successful in every way. Speeches were made by Mr. Geo. W. Curtis, Dr. Bellows, Dr. Storrs, and Dr. E. C. Seguin; letters were read from Dr. Willard Parker, Mr. Sewall, and Mr. Frank B. Sanborn and Hon. Dorman B. Eaton. Full reports of these have appeared in the daily press, and we need not go into any details about them now.

The speeches were, in their general character, entirely devoid of personality or inflammatory appeals; but were, nevertheless, extremely earnest and determined in calling for reform. It was shown very clearly that our asylum system is imperfect and behind that of other countries; it was shown, further, that the care of the insane is a branch of public service that, above all others, needs to be kept constantly before the public eye; and it was shown that the State and city are expending immense and continually increasing sums on the insane, without having yet secured adequate provision for them. These facts, without taking into account the more special evils, were found sufficient reason to urge the formation of a Board of Lunacy Commissioners; and the

securing such a board was made the particular object of the meeting. At its conclusion, resolutions were adopted recommending to the Legislature the establishment of such a board, and appointing a committee to frame a bill covering that end.

The same committee was authorized to set on foot the organization of a National Association for the Protection of the Insane. Such an association will undoubtedly be of great service, as furnishing a nucleus for further effort, and giving an assurance that the work of reform is not spasmodic, but is placed on a broad and permanent basis.

Much wisdom was shown in the concentration of the efforts of those wishing lunacy reform upon a single object—that of securing a lunacy commission. Such a board we have before advocated as being an essential in reform, and it now appears to be the first and wisest step that can be taken in that direction.

With an efficient Board of Lunacy Commissioners, raised above political influences, and furnished with proper authority, every improvement possible in asylum management can be expected to be brought about in good time.

The tone and management of the meeting showed that wisdom had been gained from the wretched experience of last winter. No petty and personal charges were made, but the demand for reform and for a lunacy board to initiate and perpetuate it was based on the unassailable ground of the helplessness of the insane, the rights of the citizen, and the success of lunacy boards elsewhere.

It is to be hoped that the work begun by this meeting will not be dropped. If placed in energetic and fearless hands, with the impetus public spirit has now given it, we may expect before long to find the care of our insane becoming less of a reproach to medical science, and of an offence to humanity.

THE VENTILATION OF CHURCHES AND THE SPREAD OF CONTAGIOUS DISEASES.

In a recent number of the *New York Freeman's Journal*, its editor publishes an address on State Medicine, delivered by Dr. O'Sullivan before the Medico-legal Society, and comments editorially on those portions referring to church ventilation and the spread of contagious diseases. It is somewhat surprising that the only excuse he offers for the bad ventilation of the Catholic churches is, that there is danger of exposing such worshippers as remain to the draughts from open windows. In order to make the necessary change of air, it is requisite that the churches should be empty at the times referred to between masses. A few moments would be all that is required, while those in waiting could assemble in some adjoining room. It is true that this would involve the expenditure of some time and some extra trouble to the sextons, but in a fresher atmosphere the good people could doubtless pray better. The plan is so simple that many of

the priests of the leading churches are inclined to adopt it.

We speak of the Catholic churches in this connection, because none of the other religious edifices have their audience-rooms occupied by large numbers of people for so many hours at a time.

In the matter of spreading contagion in churches by the attendance of persons who are nursing cases of infectious diseases, our learned friend ventures the opinion that such persons are no more dangerous than physicians. The cases of the nurse and physician are hardly parallel ones in such a connection. The nurse is in constant attendance upon the sick one, is saturated more or less with poisonous emanations, and uses no precautions against the spread of the disease. Such persons, too, are apt to attend mass when the largest numbers are present, in the earlier parts of the day, and when the air is already loaded with impurities. The physician, on the contrary, knowing the dangers of disseminating infection, adopts the precautions which the circumstances make necessary. He does not go directly from the bedside of the sick into a crowded assembly; he stays but a short time by the patient, has the advantage of fresh air as a constant disinfectant, and even changes his clothing when it is necessary. As a matter of fact, considering the chances to the contrary, physicians rarely carry disease, while it is a notorious fact that ordinary nurses and other attendants upon the sick are most active disseminators of poison.

The distinguished editor of the *Freeman* advises that there be a little more trust in God, as the safeguard against the dangers of which we speak; but we still believe that there is no harm in "keeping the powder dry" also.

Reports of Societies.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, December 4, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

The Academy was called to order at 7.45 P. M., and the minutes of the last stated meeting were read by the Secretary, DR. H. T. HANKS.

The annual report of the Treasurer was read, and showed a balance in the treasury of \$342.03.

The report of the Board of Trustees was read by DR. S. S. PURPLE, and showed a balance of \$293.97 in favor of the Academy, and a total valuation of all the property belonging to the Academy of \$81,400.

The annual report of the Recording Secretary was read, and showed an increase of 33 in the resident fellowship during the past year.

The report of the Corresponding Secretary was read by DR. JOHN G. ADAMS, and a resumption of

the publication of the volume of Transactions was recommended.

The Committee on Library reported, through the Librarian, DR. LAURENCE JOHNSON, recommending a circulating department of the library and an additional reading-room. The recommendations had been adopted by the council. The number of medical journals to be found in the library the coming year is 122. Of that number there are 24 German, 24 French, 12 English, 4 Spanish, 4 Italian, 1 Cuban, and 53 American.

The reading of the annual reports of other committees was dispensed with, and the Academy proceeded to the nomination of officers, after which a paper on

SOME OF THE COMMONER AFFECTIONS OF THE TONSILS, FROM A DIAGNOSTIC AND THERAPEUTIC STANDPOINT,

was read by DR. GEORGE M. LEFFERTS. (Vid. page 601.)

The paper being before the Academy for discussion,

DR. J. H. DOUGLAS referred to one point not mentioned by Dr. Lefferts, and which he thought of considerable importance in studying affections of the tonsils—namely, the situation of the tonsil between the arches of the palate, anterior and posterior, which in the acute stage of inflammation strangulated the gland to a greater or less degree, thus tending to keep it filled with blood, perpetuate the pain, and prolong the disease.

In chronic enlargement of the tonsils the anatomical arrangement and the effect were the same, and in most cases the strangulation was very marked, which was kept up by the catarrhal inflammation.

The practical point was to relieve the catarrhal inflammation in the acute cases, especially affecting the posterior half of the posterior arch and nasal fossa, and that could be done best by injecting those parts forcibly by means of a syringe with a long, curved nozzle, so as to remove the masses of thick mucus which had lodged there. When that was done from four to six times daily, the tumefaction of the tonsil usually at once subsided, the patient was relieved, and was able to fall asleep readily.

In chronic tonsillitis he resorted to the same plan of treatment, together with washing out the crypts of the tonsils with water and keeping them free from accumulations of secretion. When that was done, it was remarkable with what celerity the hypertrophy would disappear, and the treatment followed up from time to time had reduced the largest tonsil he had seen. He did not approve of the use of nitrate of silver, and he now rarely used a knife. With regard to hemorrhage following excision of the tonsils, he thought there would be no difficulty if the coagulum was kept thoroughly removed. He agreed with Dr. Lefferts upon the point that quinsy sore-throat occurred for the most part in those who had an arthritic constitution.

DR. BEVERLEY ROBINSON directed attention to one practical point in the differentiation of follicular tonsillitis from diphtheria. Both were contagious; but he believed that when the membrane fell off in follicular tonsillitis, it *did not reappear*, as was the case in diphtheria, two or three days after falling of the membrane. Albumen also was present in the urine of the diphtheritic patient, while in cases of follicular tonsillitis it was absent.

He agreed with Dr. Lefferts regarding the inefficiency of gargles, the benefits from inhalation, the uses of scarifications, and incisions in the acute affections

of the tonsils. He also corroborated what had been said regarding the evils attending chronic inflammation of the tonsils, and partially agreed with him regarding excision.

He was disposed to believe that follicular or herpetic tonsillar disease had simply a *different localization*, but was the same disease as inflammatory or membranous croup.

DR. D. B. ST. JOHN ROOSA remarked that the speaker was not willing to state positively whether the tonsil actually pressed upon the Eustachian tube, thus producing deafness, or not. He believed, however, that an inflamed tonsil never pressed upon the mouth of the Eustachian tube so as to cause deafness; but that the deafness, if present, was coincident, and depended upon inflammation of the mouth or calibre of the tube or tympanic cavity, caused by the same conditions as those which gave rise to the tonsillar affection. He was sorry for the introduction of the term "throat deafness," because it implied that there was a form of deafness dependent upon disease of the throat. In his opinion there was no deafness depending upon disease of the throat, unless the Eustachian tube or the tympanic cavity, as well as the throat, was involved. In acute tonsillitis he thought impairment of hearing very seldom was present, unless there was the history of a catarrhal deafness preceding the acute attack. He believed that we might have never so much swelling of the tonsils, and yet no impairment of hearing. Nevertheless, enlargement of the tonsils became an important factor in the treatment of diseases of the ear, and the ear could not be put into a healthy condition so long as such enlargement existed. Therefore, otologists were accustomed to advise excision of the enlarged tonsils, in order to favor obtaining a healthy throat, which so much favored a healthy ear.

With reference to gargling, he was in full accord with Dr. Lefferts regarding its inefficacy; yet he believed it might be made much more efficacious than it ordinarily was, by following von Tröltsch's method, which had not received the consideration to which it was entitled.

VON TRÖLTSCHE'S METHOD OF GARGLING.

The method is as follows: The gargle is held in the back part of the mouth, the head thrown well back, and the nostrils closed with the fingers; swallowing motions are then performed without actually swallowing the solution. That by this method the pharynx could be reached he had proven by painting the wall of the pharynx with iodine and then causing a solution of starch to be used as a gargle, when the characteristic reaction was produced invariably.

DR. R. P. LINCOLN remarked with reference to the wide influence which diseased tonsils, especially chronic hypertrophy, exerted over the ears, that it had been his fortune, in several instances, to see quite anomalous phenomena, which had led him to seek for a cause for ear-phenomena associated with tonsillar affections, and he had reached the conclusion that it was purely mechanical, and produced through the agency of the nerves coming from the glosso-pharyngeal, acting in a reflex manner. There was also, through the otic ganglia of the sympathetic system, a connection between the throat and the ear. Within the past week, in endeavoring to remove a collection of inspissated mucus from a tonsil, although it was done with the very least degree of violence, the patient subsequently suffered from pain in the ear sufficiently severe to prevent sleep, and yet there was

no manifestation whatever of inflammatory action in the ear itself. He thought such collections of inspissated mucus in the tonsils required treatment much oftener than, perhaps, ought to be inferred from the remarks of the writer of the paper. There were many patients who had enlarged tonsils, not perhaps to a degree to require excision, but often requiring treatment because of the pharyngeal catarrh they produced, and such cases he believed should be treated by applications, such as referred to, into the crypts themselves of the tonsils. Perhaps nitrate of silver might be used. A favorite mixture with him was carbolic acid and co. tr. of iodine, in the proportion of 1 to 2, applied directly to the lining membrane after the crypts had been rid of the collections of mucus. It was not always successful; and, when not, excising a small portion and applying the galvanocautery to the lining of the crypt would almost always effect a cure.

He referred to a case in which a collection of inspissated mucus was as large as an English walnut.

DR. BOSWORTH believed that the exudation in follicular tonsillitis was croupous in character, and that it could be best cured by passing a probe coated with nitrate of silver into the crypts and the administration of large doses of quinine. With regard to the many evils attending enlarged tonsils, such as poisoned air going to the lungs, dyspepsia, etc., he was in accord with Dr. Lefferts, but with reference to the sinking in of the bones of the chest and the formation of "pigeon-breast," referred to by Dr. L. as one of the results of enlarged tonsils, he should simply attribute that condition to a rachitic diathesis preceding and probably favoring the existence of enlarged tonsils. He also referred to nightmare as a common symptom of chronic enlargement of the tonsils.

With regard to *acute tonsillitis*, he thought it quite probable that, in most cases, no form of abortive treatment possessed special efficacy; still, in a number of instances he had succeeded in aborting what he believed was the disease by giving gra. x. of quinine, and following it with Fleming's tincture of acetonite in such doses as would rapidly produce marked physiological effects of the drug, such as dryness of the throat, dizziness, and ringing in the ears, and then discontinue it. That method would do no good if suppuration had been established.

He regarded croupous, catarrhal, and diphtheritic as three distinct forms of inflammation, and thought that more care should be taken in making the nomenclature of diseases of throat to correspond to the pathological state.

DR. A. H. SMITH thought that incising the glands in *acute tonsillitis* left wounds nearly as large as would be made by ablation, and as the latter was the most efficient, it might better be employed at once.

With regard to occasional *failure of the stump of the tonsil to atrophy* after the projecting portion had been removed, it was perhaps to be explained, at least in some cases, that the tonsil receives blood at its upper portion, and the lower portion alone has been removed. If the upper portion of the tonsil was cut off, the supply of blood was removed, and the operation was quite effectual. If the anterior pillar of the fauces was adherent to the tonsil, as it was not infrequently, it was important to first break up the adhesions, so as to secure complete ablation of the superior portion of the gland.

He suggested the following method of *coating a probe with nitrate of silver*: Dip the extremity of the probe into powdered nitrate of silver and then hold it for an instant over a flame, and the silver that ad-

heres to the probe will melt and form a smooth covering.

DR. F. A. BURRALL remarked, regarding the *treatment of tonsillitis*, that he did not accept the views of those who dissented from the use of *gargles*, because they do not reach the pharynx; for, as a rule, in tonsillitis it was not the pharynx we wished to reach. A gargle might be used so as to give pain, or it might be a temporary substitute for a poultice and give efficient relief. The action of a warm gargle repeated every half-hour was to favor suppuration, and, when they contained emollient substances, were very soothing and beneficial. Gargles, steam, and spray, all had their value. Stimulating gargles, were of value in reducing the size of hypertrophied tonsils. He favored constitutional treatment in throat diseases, and by preference gave a calomel purge in the early stages of acute tonsillitis.

All acute sore throats should be treated as if infectious, especially in children.

Tonics, beginning very early, and frequency of application, were very important in the abortive treatment of tonsillitis and other forms of sore throat.

REPORT OF THE STATISTICAL SECRETARY.

DR. F. V. WHITE, Statistical Secretary, announced the death of Freeman J. Bumstead, M.D., LL.D., and gave a brief sketch of his life.

THE PRESIDENT paid the following tribute to his memory:

By the death of Dr. Bumstead, the Academy of Medicine and the profession of this city have lost one of its most eminent men, who contributed largely to give it the rank which is now conceded to it, not only in this country but abroad. He had always been a most industrious, methodical, able and honest worker for its science and its literature, and the results of his labors will hold a prominent and a permanent place in medical literature.

As an intimate acquaintance of more than twenty-five years, I am competent to say of his personal character, that it secured the warm affection and sincere esteem of all those who enjoyed this privilege.

In accordance with the by-laws, I will designate to prepare a memoir of Dr. Bumstead, one eminently qualified to do justice to his personal qualities, his professional abilities, and his literary work—DR. GEO. A. PETERS.

ADOPTION OF NEW BY-LAW.

The new by-law relating to fellowship was adopted to take effect after the first meeting in January, 1880. The Anniversary Meeting was announced to take place on Thursday evening, December 11th, with Dr. Leroy M. Yale as orator, and his subject, "The Academy as an Educator."

The Academy then adjourned.

Anniversary Meeting, December 11, 1879.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Academy was called to order at 8 P.M., and prayer was offered by Rev. Dr. Washburn.

The orator of the evening, DR. LEROY M. YALE, being unavoidably detained at home on account of sickness, DR. F. A. CASTLE read the oration, which had for its subject

"THE ACADEMY AS A TEACHER."

A brief reference was made to the early history of the Academy in comparison with its present position in its new library hall, the munificent representa-

tion of the far-sightedness of one of the fellows; to the methods of controlling the education preparatory to entering the medical profession; to the great law of supply and demand, which had a marked influence in every department of society; to the principle that men, like water, found their true level—a principle which pretty constantly affected every member of society; and then the orator passed to the main subject of the oration, and inquired how had the Academy, taught in the past, how is she teaching, and what part will she take in the teaching of the future?

The Academy had been efficient as a teacher in two important ways—namely, cultivation of the science of medicine, and elevation of the character and honor of the profession.

With reference to the first, the scientific papers presented during the thirty years it had existed, possessed considerable value; indeed, as had been said, "a value far greater than we can well imagine." It might be said that those old papers had been left far behind, and were worthless as aids to modern study; but their value must be estimated from the standpoint and the date at which they were written, and then their intrinsic worth became apparent, and the influence which they exerted upon the education of those who lived subsequent to their authors might be duly appreciated.

The second avowed object in founding the Academy was an ethical one, and that end had not been lost sight of. The loss of the esteem of the fellows was a potent factor in regulating the ethics of the profession, in elevating the character of its members, and maintaining its honor; and it was to be hoped that the influence of the traditions of the fathers would not be lost in this particular—namely, only those were elected to fellowship who won the position by purity of conduct.

The orator then referred to the library of the Academy, its origin and its work, and urged its claims upon the fellows and the profession for contributions of books, even old books—for it was nothing of disparagement to a library that it was rich in old books; and the calm wisdom of old experience was oftentimes more substantial aid than the brilliant exploits of young enthusiasm. The Academy had opened its reading-rooms, and the influence which a storehouse of books could exert might now permeate among the reading classes. But there were others whose wants should be supplied, and to that end he urged, with Dr. Thomson, who delivered the Anniversary Address for 1878, that lectureships should be established; and, in order to secure the lectures, if funds were not forthcoming, an appeal should be made to those who are able to lay aside their modesty and speak without pecuniary reward.

He also suggested the founding of scholarships, and asked if it was not possible for the Academy to found a museum. If museums were good, there could not be too many of them. To be sure, the city had Wood's Museum at Bellevue Hospital—a monument of great personal energy and industry; the New York Hospital Museum, and college museums. But the museums of hospitals and colleges would always be increased by those who were in close affiliation with them, while a museum founded by the Academy of Medicine would gather a new type of specimens, and a large amount of valuable material which now was wasted. A museum, once started, could be built up the same as had been the library, and all that could illustrate the science and art of medicine could be secured for the Academy, if it would undertake to be its custodian.

In conclusion, the orator alluded to the Academy as an association not devoted to special study or narrow special ends, but a common meeting-ground of the best elements of our professional body, and an organization that had the power of age and the character of authority.

The oration was well received.

THE PRESIDENT extended the thanks of the Academy to Dr. Castle, after which the exercises were closed by the benediction.

Correspondence.

THE EDITORIALS ON ASYLUM MANAGEMENT.

A LETTER FROM PROF. E. C. SEGUIN, M.D.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—The issues of the RECORD for Dec. 6th and 13th contained editorial comments upon the Senate Committee's report on the petition of the New York Neurological Society, praying for an investigation into "the management of all institutions for the care of the insane in the State of New York." These editorials are calculated to cast discredit upon the members of the Society and upon the signers of the petition, and are based upon a confiding acceptance of the statements of the Senate Committee. This committee's report is biased, filled with deceptive phrases, and contains positive falsehoods. This will shortly be made known to the public by the Neurological Society in a formal review of the report.

I now beg the privilege of calling your attention to a few points which may be of interest to your readers, and are necessary to a fair statement of the questions you raised.

1. You ought to have given the names of the committee of the Neurological Society, as a work is judged somewhat according to its authorship. The names of the committee which prepared the petition are: T. A. McBride, E. C. Harwood, E. C. Seguin, E. C. Spitzka, and J. G. Kiernan. After the acceptance of the petition by the Society, the names of William A. Hammond, W. G. Morton, and Landon C. Gray were added. These gentlemen are perfectly willing to be looked upon as petitioners in such a noble cause as that of bettering the condition of the insane. They need no defence, and fear no comparison with any one.

2. The committee of the Neurological Society believe to-day that every sentence of their petition is correct, and think that a thorough investigation made now would show that many of the questions in the petition would expose ugly sores. Was not the Asylum for Convicts at Auburn found in a frightful condition by a legislative committee in 1876, only three years ago? Yet that asylum had been approved by the officials who managed the proceedings of the Senate Committee (*vide* "Archives of Medicine," Vol. II., p. 190 *et seq.*). This instance (which reads like a story from asylums before the days of Pinel), and numerous complaints in the press, and our reading knowledge of the working of asylums, were the data calling for an investigation. Besides, we had material such as conversations with superintendents, long talks with assistant physicians, etc., which, being of a private nature, could not be utilized without breach of manners or of trust. But above this we deny that we were witnesses; we were citizens and taxpayers

praying for inquiry; we were asking for the facts from the only parties who could give them, viz.: the asylum officials, *under oath*. Dr. Willard Parker, Sr. (and no doubt others), wrote a letter of sharp rebuke to the Senate Committee, in reply to their "summons." They are careful not to print these letters. If we had had charges, in the technical sense, we would not have gone to the Legislature. What has it to do with "charges"? We would have gone to the Governor, or to the courts, with our charges and witnesses.

3. The Senate Committee, and I regret to say, the editorial also, ignore that in the very nature of the questions asked by our petition, ordinary outside testimony could not be adduced. For example, how can any one but a superintendent testify "of his own knowledge" as to the number of days he is absent from duty, the frequency of his night visits, his outside professional work, etc.

Indeed, I think that almost all the inquiries suggested by the petition are of such a nature as to be answered only in the way mentioned.

4. The Senate Committee speak as if our petition referred to *State asylums*. It did not; it expressly referred to "all institutions for the care of the insane in the State of New York." Several of the worst abuses we well knew not to exist in the State asylums.

5. In your first editorial, you speak as follows: "For this failure they are accountable to the profession they assumed to represent."

I would beg to know if, when you wrote this, you had seen the list of names attached to the petition? Did you know that the following gentlemen were petitioners?—Prof. Willard Parker, Prof. John T. Metcalfe, Prof. T. M. Markoe, Drs. E. R. Squibb, R. F. Weir, Andrew H. Smith. Why not say that these gentlemen *do* represent the profession; is it easy to find a more representative and honorable group? Such a statement as yours, like the insinuations of the Senate Committee about the motives of the promoters of the petition, and the standing of the Neurological Society, are personally offensive and unjust. As to the standing of the Society, your own columns for the past two years are good enough witnesses.

6. Next, as to a vile charge circulated broadcast by the superintendents and the Senate Committee: that of forging names of signers. President Barnard did sign the petition (my own copy) without solicitation, after keeping the document at least three days. He simply forgot all about it, and then wrote letters of a most injurious tenor. I called upon Dr. Barnard in April about this matter, and found his *amnesia* still complete. He then said that his reason for withdrawing his name from the petition was that it affected the reputation of a colleague and friend (the Commissioner of Lunacy), and he expressed no criticism of the petition itself. So the name of Dr. John W. Draper was forged! It happens that the name on the petition is John C. Draper; no one sought to obtain his father's name.

7. Your second editorial seems to have been written with quite another kind of ink. It also treats the petitioners unjustly, but in some respects it encourages us. In it you express substantially our grievances, you proclaim the existence of abuses, and (most comforting) you do it precisely as we did it, without legal proof. If a power were to place you on the witness-stand, could you "of your own knowledge" testify as to the existence of the abuses you write about? We must, indeed, pity the insane if their treatment is to be improved only after legal

proof of mismanagement, neglect, non-medical treatment, etc., is obtained.

I would conclude by saying that the petitioners are in no wise on the defensive, but are as active as ever for asylum investigation and reform. Some of them were glad to co-operate in the movement which culminated in the meeting at Cooper Union on December 18th. They will be satisfied if a lunacy commission or board of lunacy be established, for one of the duties of such a board will be investigation. I greatly fear that next winter will witness an opposition to the bill for a commission—an opposition conducted by the asylum officials. Yet, the other evening, the Rev. Dr. Storrs reminded the superintendents, that their safety and good reputation would only be made more secure in public estimation by having such a commission, and by answering all questions. As he eloquently said, the broad light of day should shine upon this whole subject of lunacy.

Very truly yours,

E. C. SEGUN.

[The strictures of our esteemed correspondent invite a word or two of explanation from us. At the start we put in a plea of not guilty. We are sorry to say that we have nothing to retract. The true significance of this assertion will be better understood, perhaps, when we state that we are in full sympathy with all well-directed methods for reforming asylum management. We candidly confess that we expected better things of the Neurological Society. In the expression of our disappointment at the results of the petition, we believe we echoed the general sentiment of the profession. If we have misinterpreted such a sentiment we are willing to acknowledge our error.

Our remarks were based, it is true, "upon a confiding acceptance of the statements of the Senate Committee," because we had nothing else to guide us. We were not aware, at the time of writing, that the report of the Senate Committee was biased, etc., and even now we are asked to wait for the proof of such a charge until the committee of the Neurological Society shall make a formal review of said report.

We did not mention any names in referring to the petitioners. In the discussion of principles, we can afford to lose sight of individuals. We were estimating the character of the work rather than the ability of the workers. We acknowledge their ability, but are simply disappointed in their work. There is no disposition on our part to deny them the privilege of petitioners. They are working in a good cause, and we hope they will be able in the forthcoming report to vindicate their course in the recent investigation. We did not assert that the gentlemen who were witnesses before the committee could not prove that there were very many abuses in asylum management, but that they did not.

We are not a little surprised to learn that, after testifying before the committee, the gentlemen must not be considered as witnesses. If it were not proper to appear as witnesses, why did the gentlemen do so? But we are not willing of ourselves to acknowledge that they did wrong, under the circumstances, in simply appearing and in giving testimony. The petition was an extraordinary one, in that it referred to gross abuses in the medical management of insane asylums, and the Senate Committee very naturally asked for some explanation from the medical men signing the petition. The end to be attained was of such great importance that the petitioners were warranted in giving all the aid they could to the Senate Committee. When the Senate Committee

state that the petition refers simply to State asylums, they are clearly in error. But we cannot understand what this has to do with the question.

Evidently, there were many questions which could not have been answered by any but the superintendents or nurses of asylums; but, besides, there were statements of the greatest possible significance referring "to more strictly medical matters," which should have been verified by the petitioners themselves. This was all that could have been expected of them.

In the matter of accountability to the profession, we referred more particularly to those gentlemen who appeared as witnesses, and to those who were the more active movers in the petition. If the other petitioners, named by our correspondent, are willing to endorse all that has been done by their confreres before the Senate Committee, we are of the opinion that they likewise are accountable to the profession. In fact, the higher and more representative their positions, the greater are their responsibilities.

We did not know, when we wrote the editorials, who were the additional signers referred to by our correspondent. Hence we are entirely innocent of any charge of ignoring their representative character, or of applying any remarks to them which were "personally offensive and unjust." But we fail to see how a mere knowledge that these particular gentlemen had signed the petition could have helped us to any different conclusions. We said nothing against the standing of the Neurological Society. The very fact that the petition was endorsed by the Society and started by some of its prominent members, gave us every hope that great things would be accomplished.

We have nothing whatever to do with the so-called charge of forging names to the petition. We never believed such a thing possible with any member of the committee, and any explanation referring to it is entirely irrelevant to the discussion. We claim that the second editorial referred to by our correspondent was perfectly in keeping with the first. We have often written of the abuses in asylum management, and there is nothing inconsistent in referring to them in connection with the report of the Senate Committee. Our statements are always founded on facts, and we are always ready to assume all responsibility for them. If we cannot furnish legal proof for everything we say concerning asylum or other matters in these columns, we are willing to publicly retract such statements and apologize besides for our presumption.

In conclusion, we beg the pardon of our correspondent for replying to him in this direct manner; but we could not deny him the justice of being heard, neither could we afford to have many of his statements go unchallenged.—G. F. S.]

KOLPOKLEISIS AND CLOSURE OF THE VULVA FOR VESICO-VAGINAL FISTULA.

REPLY TO DR. WM. GOODELL.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR:—In your issue of Nov. 29th, under "Reports of Hospitals," are set forth the views of Dr. William Goodell upon the treatment of twenty or more of the diseases of women as they have occurred in his service at the Preston Retreat, Philadelphia. Prominent among them are kolpokleisis and "closure of the vulva for vesico-vaginal fistula."

Dr. Goodell's deservedly eminent position, both as a teacher and a writer upon gynecological subjects, gives his views and opinions great weight with the

profession, whether endorsed or not by the individual reader.

I am induced to call special attention to Dr. Goodell's method of treating certain forms of vesico-vaginal fistule, by asking two questions: First, is the method he recommends the best that can be employed? and, second, does it have the sanction of American gynecologists?

1. *Is the method recommended the best that can be employed?*

Upon this point, Dr. Goodell is reported in these words: "In curable cases of vesico-vaginal fistula, in which the urethra has been destroyed, he has twice succeeded in wholly relieving the patient. In one instance this was done by making an artificial recto-vaginal fistula; and, in the other, by leaving an already existing one intact, and closing up the vulva. Whenever practicable, he prefers, in this unfortunate condition, when the urethra is unimpaired, to close the vagina as high up as possible, so that the marital relations shall not be interfered with."

Now, with regard to the destruction of the urethra, from whatever cause, when associated with an incurable vesico-vaginal fistule, the teaching of Dr. G., if the writer understands it properly, is to establish a permanent fistulous opening between the rectum and vagina, should one not already exist, and then proceed to close up or obturate the vulva by refreshing and uniting with sutures both pair of the labia pudendi, thus throwing the bladder, vagina, cavity of the uterus, and rectum into direct communication with the anus, which shall serve as a common outlet for all. The effect of this is to force all the urine to pass from the bladder into the vagina, and from the latter into the rectum, alone or commingled with the menstrual blood when present, and *vice versa*, the gas and dissolved feces to pass from the rectum into the vagina, thence into the bladder and the cavity of the uterus, when, as is usually present in this condition, a patulous condition of the mouth of the latter favors it. To this state of things the gradually developing sequences must also be added—such as alkaline urine, cystitis, nephritis, calculous formations in the kidneys, ureters, and bladder, vaginitis, with calculous formations and ulcerations, granular erosions of the os uteri, endometritis, metritis, cellulitis, peritonitis, nervous complications, irritation, inflammation and ulceration of the mucous coat of the rectum, chronic diarrhoea, gradual loss of power over the sphincter ani muscle, with more or less incontinence of the urino-menstrual secretions with the feces; death sooner or later, and the picture of the ordeal through which the sufferer may be expected to pass is complete.

Scarcely need it be said that this is kolpoplekisis in its worst form. Even when the urethra is uninjured, and the object is to refresh and unite the opposing walls of the vagina high up, for the relief of incurable vesico-vaginal fistules, and as a means of preserving the sexual functions, as stated in the quoted remarks, the accompanying sequences differ only in number, and the sufferer will have to pass through the same ordeal indicated above, less that portion relating specially to the rectum and its functions. Dr. Goodell's large clinical experience may enable him to draw more hopeful conclusions in the classes of cases pointed out than is here shown by the writer; but the laws of chemistry, and those affecting the spread of disease, whether in the solid textures of organs or in their hidden cavities, are invariable; and from what has already been abundantly attested in these particulars by equally close observers, there

is reason to believe he, too, will have occasion, sooner or later, to change his views regarding results, should he chance to watch these cases long enough, and interpret aright the concatenation of sequences just enumerated. To convert a part of the vagina into a urinal, as by kolpoplekisis, to relieve incontinence of urine, and to save the other part, "so that the marital relations shall not be interfered with," while the urethra serves as an escapement for the urine and menstrual blood, is acknowledgment enough of the defectiveness of the resources of gynecology; but to feel obliged to make not only an urinal, but a gasometer of the vagina and bladder, as by vulvoplekisis with the rectum serving both as supply and escapement tube for gas, feces, menstrual blood, and alkaline urine, is still more humiliating in the face of so many advanced improvements in other special branches of practice. This writer is of the opinion that in all cases calling for such methods of treatment, a plug-valve and an overflow escapement are far preferable, and that the place for the former is in the recto-vaginal passage, and, for the latter, in the mouth of the vagina. He furthermore believes, these two points of practice being recognized and insisted upon, that if the resources of gynecology are not equal to the requirements of overcoming the obstacles to the legitimate cure, with preservation of all the normal functions intact, it is better to trust to mechanical expedients by which the free outlets of the bladder, vagina, and uterus can be maintained, and the sufferer made in no small degree comfortable and contented.

The analogue of the perversion of the functions of the rectum as above indicated, is found to exist in the male subject from the establishment of a communication between the rectum and the bladder—recto-vesical fistule—from whatever cause; but in this relationship of the two organs, the bladder maintains its urethral escapement, by which it is siphoned both of gas and urino-faecal discharges. It differs in this last important particular from the female bladder after the employment of the method described, since the urethra is here supposed to be destroyed and its vacant place shut in, thus rendering it impossible through this natural channel to siphon either the bladder or vagina of gas and urino-menstrual and fecal fluids.

Now the evil consequences of a recto-vesical fistule are almost nothing as compared with those following a recto-vagino-vesical fistule, yet where is the surgeon to-day, with the bright lights of science dazzling before his eyes, who would dare imitate the example of Sanson (1816), and cut for stone through the rectum, with nearly all the chances against him that the lesion in question, with all its dreaded sequences, would follow? Great, however, as the responsibility would here seem to be, it is but little, if any, less great than the employment of the method under consideration, without a compensating urethral escapement, with stop-cocks by which the bladder and vagina might, at least, be siphoned occasionally of their constantly accumulating gas from the rectum, and be flushed in their deep pouches and recesses with disinfectants.

2. *Has the method recommended received the sanction of American gynecologists?* In 1833, when Vidal (de Casis) first proposed to obturate the vulva for the relief of incontinence of urine from vesico-vaginal fistules situated in the *bas fond* of the bladder, and attended with loss of tissue, then believed to be incurable, as shown by various discussions upon the subject before the Academy of Medicine of Paris, it did not

occur to him that closure of a mutilated urethra or its vacant place might ever be included in the same novel procedure. To whom the credit is due of having been the first to execute this modification of the procedure of M. Vidal, the writer is not informed. Per contra, from the great improvements made in the treatment of vesico-vaginal fistule within the last few years, the writer had supposed that this French theory had sunk into desuetude. Having himself only one time, many years ago (1853), attempted the expedient, which failed, in a case thought to require it by an eminent gynecologist, and having afterward legitimately cured the case with preservation of the functions of all the organs involved, he can now hardly be expected to set any higher value upon the modification of it here discussed, than upon the original procedure at the date mentioned. As to the appreciation of American gynecologists generally of such expedients, he has again to acknowledge his want of information. Dr. T. A. Emmet, in his recent work (*Principles and Practice of Gynecology*), may, however, be referred to as having lately ranged himself on the side of opposition to kolpopleisis, the twin sister of the procedure under consideration. After speaking in a general way of the controversy between the author of this method and the writer, he says: "There exists no greater malpractice in surgery than the procedure which we are told was practised by that great master, the late Prof. Simon, of Heidelberg." In the interest of suffering women, no more important precept in practice than the above could be laid down for the guidance of inexperienced operators, and of itself is enough to recommend the author, although at the eleventh hour, to the highest consideration, even had his book no other claim to merit. Now, notwithstanding the fact that the writer has for so many years stood alone, and opposed, upon scientific grounds, these French and German expedients, both with his pen and upon the operating-table, at home and abroad, under the eyes, so to speak, of their authors, he has never yet characterized them as malpractices; he has, however, often said, and here reiterates it, that they have a most important medico-legal bearing, both as regards the marital rights of husbands and the recourses left to mutilated and helpless wives, that will, sooner or later, in extreme cases, demand, he believes, judicial investigation as to the legitimacy and necessity of their employment. While kolpopleisis, especially, is known to be notoriously common throughout Europe, except, perhaps, in Austria, arising, mainly, from a want of appreciation of kolpoecetasis, its opposing companion here in the United States, where the first highest success in the treatment of vesico-vaginal fistule was attained, the latter principle, in some form, has generally been accepted and acted upon, though oftentimes, no doubt, very inefficiently. The consequence is, that the objectionable expedient herein has been kept in the background which only occasionally comes to the front under some other designation than Kolpopleisis, as may properly be said of the words quoted in the sentences forming the basis of these remarks.

A rose is said to be just as sweet called by any other name. The closure of the vagina in its continuity, by agglutination of its walls, for an incurable vesico-vaginal fistule so-called, is high-sounding, it is true, to the uninformed and uninitiated; and the proposal really does at first glance betoken some science and philosophy, especially to have coupled with it the assurance "that the marital relations shall not be interfered with." But, however that may be, the

vindication of science or of philosophy, it is believed by the writer at least, accepts the old cognomen kolpopleisis, which openly contemplates the establishment of a urinal in one end of the vagina, and a blind cul-de-sac of variable dimensions in the other end, as far preferable, since it is historic; and he or she who reads it aright may understand its worth, the ignorant as well as the learned.

Yours truly,

NATHAN BOZEMAN, M.D.

NEW YORK, Dec. 8, 1879.

Medical Items and News.

CONTAGIOUS DISEASES — WEEKLY STATEMENT. — Comparative statement of cases of contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending December 20, 1879.

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Dec. 13, 1879...	0	11	51	1	196	33	0	0
Dec. 20, 1879...	0	4	42	1	271	57	0	0

DR. JOHN C. PETERS AND THE TRANSACTIONS OF THE NEW YORK PATHOLOGICAL SOCIETY. — In our recent review of the Transactions of the New York Pathological Society, we accidentally omitted mention of the name of the editor, Dr. John C. Peters, to whom all the credit is due for making the volume what it is — the most interesting and instructive of its kind yet published.

LUMBO-COLOMOTOMY. — Dr. Howe's case of lumbo-colotomy lived seven months, instead of seven weeks, as stated in the report of the Pathological Society.

THE SUCCESSFUL PRACTITIONER OF PINE RIDGE. — To such as may be interested in the success of the "Successful Practitioner," we will state that his letters have been so extensively copied in the various journals over the country, that he has become concerned about his reputation.

The following letter to the *Boston Medical and Surgical Journal* proves that the best of us are anxious to be right on the record. It also affords us another example of the practitioner's kindness towards White and his concern for the Code. His reply to a complimentary letter from France shows him ever ready to be obliging:

To the *Boston Medical and Surgical Journal*:

"MR. EDITOR — Although my great professional success has placed me beyond any vanity for new triumphs, I cannot help expressing my satisfaction in seeing my letters republished 'in your excellent, influential, and widely circulated journal.' I hope that the foregoing compliment will permit me to 'call your attention to an error of your printer.'

It so happens that, very unfortunately for my reputation in this country and abroad, you call me the 'Pea Ridge' instead of the 'Pine Ridge' practitioner. The fact is, my former partner lives at Pea Ridge, and is making capital for himself by claiming to be the author of my letters. I have heard, incidentally, that many patients really sent to me have

come under his care in consequence of your error. This would be a small matter, as I did not write to advertise myself, but in justice to 'my noble profession, of which I am an humble member,' I believe it to be my duty to expose fraud.

I may say, in passing, that White is growing a little cool towards me. I cannot imagine the reason for this, except that I now have another of his good families. I was called in consultation a month ago, and heard nothing more of the case until the father of the family asked me to be the regular attendant henceforth. I at first refused, and told him of code regulations, when he said that he had really discharged White; that it was a free country, and he was determined to have a doctor to suit himself. I smilingly said, 'there was no accounting for people's tastes,' and rather reluctantly consented to oblige him. I felt it my duty, however, to say a good word for poor White, by remarking that, notwithstanding almost all his patients eventually came to me, I really pitied him. He deserved better things. I saw, however, that my new patient did not care to sympathize with me, inasmuch as he said he believed in the survival of the fittest. But it only shows how ungrateful patients can be.

Please give my compliments to your friend in Pau, France, and tell him that when he returns to this country I should be happy to meet him in consultation. I intend to send him a copy of the latest edition of my work.

If it is not asking too much, you may mention in 'your valuable journal' that I have been elected trustee of our college, and that the class is larger than ever this year. Also, that I have performed my nine hundred and seventieth operation for abrasion of the os, and am just completing the fortieth edition of my work, which will be immediately translated into all the foreign languages. When you receive the work for review, be careful not to send it to my partner at Pea Ridge. * * *

PINE RIDGE ON THE HUDSON.

LISTER IN GERMANY.—The French know how to say things effectively. M. Verneuil, in commenting on the enthusiasm with which the Lister treatment has been received in Germany, says: "In Germany the antiseptic treatment is not a method; it is a religion, and a religion which has its priests—and also its martyrs." Lister has taught the Germans surgical cleanliness; for this, if not for his theories, they should be grateful.

METALLOTHERAPY.—Five cases of paralysis are said to have been cured recently by the external application of magnets. The cases were not all hysterical ones. The first had been poisoned by lead; the second was subject to epilepsy; the third had had an apoplectic attack.

MM. Proust and Ballet are the gentlemen who announce these cures. They have made reports before, and their statements grow more wonderful with each report.—*Gazette Méd. de Paris*.

HYSTEROTOMY IN THE TREATMENT OF FIBROUS TUMORS.—M. Duplay has communicated to the French Academy of Medicine some statistics in regard to the treatment of fibrous and fibro-cystic tumors by operative procedure. He divided the cases into those of fibrous and those of fibro-cystic tumors of the uterus.

1st. Of fibrous tumors that had been removed by laparotomy, leaving the uterus behind, there were 17 cases, with 5 cures and 12 deaths. Similar tumors

removed with the whole uterus, 55 cases—23 cures and 32 deaths.

2d. Of fibro-cystic tumors, 41 cases, with 22 cures and 19 deaths.

Uniting the whole, there are 113 laparotomies for fibrous tumors, with 50 cures and 63 deaths.—*Gazette Hebdomad.*

THE PRECURSORS OF CANCER.—At a recent meeting of the London Clinical Society, Mr. G. Lawson read the notes of a case of cancer of the breast following eczema of the nipple. In the subsequent discussion a number of prominent surgeons took part, including Sir James Paget and Mr. Hutchinson, and some interesting facts were brought out. It was pretty generally agreed that there were a number of chronic disturbances of nutrition, which, if neglected, ended in cancer, when the cancerous period of life came on. Thus, eczema of the breast, if it were really eczema, was shown in a certain per cent. of cases to be a precursor of cancer, and the question of the early extirpation of the breast was a very important one. A similar clinical history was ascribed to ichthyosis of the tongue. This, in course of time, is likely to eventuate in cancer. A like remark applies to old burns or scars on the lower extremity. If, in advanced life, these begin to ulcerate, they are liable to become cancerous. So, too, of other conditions, such as syphilitic disease of the tongue.

The importance of knowing that cancer has its precursors was strongly urged, and an early treatment advised.

FUCUS VESICULOSUS.—This plant has now become quite popular as an anti-fat agent. In connection with its supposed properties in this direction, the *Medical Press and Circular* relates the history of its use by Laënnec fifty years ago. Laënnec had observed that on the coast of Brittany there was very little consumption. Attributing this to the atmosphere of that country he tried to reproduce it, as nearly as possible, in his wards in Paris. He had a quantity of sea-weed, including the fucus, brought to his hospital and placed near the beds of his phthisical patients. He also made them drink an infusion of the *fucus vesiculosus*. As long as the patients had the fresh plants, much improvement in health was noticed; cough and fever diminished, and the weight increased. It thus appears that the *fucus*, which is now used to reduce the weight, fifty years ago was used to increase it! Perhaps one may be permitted to exclaim: *O tempora! O mores!*

GALVANI.—A monument has recently been erected in Bologna to Luigi Galvani. Signor Vella, Bolognese Professor of Astronomy, in a memorial address took occasion to defend vivisection very eloquently.

BENZOATE OF SODA.—The number of diseases for which benzoate of soda is a specific, or claimed to be, is increasing at the rate of about one every two months. Starting as a cure for diphtheria, it has had like claims for it in scarlatina, acute rheumatism, and puerperal fever. Now Rokitsky is said to have discovered anti-tuberculous virtues in it. As the pathology of consumption is reverting to the tubercular basis, the drug has been tried in that disease, and with reputed great success. A five-per-cent. solution is sprayed down and into the bronchial tubes twice a day.

BOOKS RECEIVED.

OUTLINES OF THE PRACTICE OF MEDICINE. By SAMUEL FENWICK, M.D. Phila.: Lindsay & Blakiston. 1880.

INDEX.

A.

- Abbott, Dr. Charles, 311.
 Abdominal walls, extraction of nearly one hundred biliary calculi through, 36.
 Abernethy, Dr. John Jay, notice of death of, 432.
 Abscess of abdominal walls, 499.
 Abscess and urinary infiltration, 457.
 Academy of Medicine in Paris, 304.
 Acid, carbolic, in malarial disease, 419; chrysophanic, 69; chrysophanic and the epheides of pregnancy, 372; cresylic, in whooping-cough, 549; hydrocyanic, therapeutic value of, 157; salicylic and lupus, 227; sclerotinic, 155.
 Acne rosacea, 34; treatment of, 120.
 Aconite in pneumonia, 120.
 Acoustics, a contribution to the science of, 117.
 Adenitis, 521; acute suppurative, 588; syphilitic, 588.
 Agraphia and aphasia, 555.
 Albuminate of iron, 36.
 Albuminuria, puerperal, jaborandi in, 33, 307.
 Alcohol, in brain tissue, 454; cravings for, 451; and hospitals, 240; the medicinal use of, 278; and tobacco, 455.
 Alexis St. Martin, 384.
 Alimentation, intra-vascular, 19.
 Allingham, Dr. William, notice of book by, 86.
 Allport, Dr. Frank, heat in the treatment of fevers, 414; the treatment of yellow fever, 166.
 Aloes in the treatment of wounds of the joints, 300.
 Alopecia areata, etiology of, 150.
 American Academy of Medicine, 71, 239, 311.
 American Dermatological Association, 120, 230, 256.
 American Gynecological Society, 239, 312, 330, 373, 374.
 American Laryngological Association Library, 96.
 American Medical Association, 599.
 American Neurological Association, 14, 41.
 American Neurological Association and electro-therapeutics, 237.
 American Ophthalmological Society, 119.
 American Otological Society, 119.
 American Pharmaceutical Association, 238.
 American Public Health Association, 446, 519, 523.
 Amphoric respiration, 192.
 Amputation, of the hip, novel method of controlling hemorrhage, 215; supra-condyloid of thigh, 511.
 Amyl, nitrite of, and chloral, 519; and chloral poisoning, 156.
 Amyloid degeneration, 588.
 Anatomy, cerebral, 427; Claude Bernard's treatise on, 454.
 Anæmia and the hæmacytometer, 82.
 Anæsthesia, chloroform and morphia for, 456; its "discoverer," 428; and hot water in torticollis, 295.
 Anæsthetics, 4; a new one, 575; action of, 107.
 Arasarcia, surgical treatment of, 291.
 Apoplexy, clinical lecture, 580.
 Anderson, M. F., notice of book by, 110.
 Andrews, Dr. Edmund, quacks and regulars, 70.
 Aneurism, absence of physical signs in, 489; arch of aorta, 594; of the auricle of the ear, 300; fatal result in treatment by Esmarch's bandage, 455; internal treatment of, by chloride of barium, 300; sphymographic indications in, 507.
 Angell, Dr. Henry C., notice of book by, 64.
 Ankle-joint, compound dislocation of, 342.
 Anthelmintic, a new, 325.
 Antimony in phthisis, 235.
 Antiseptic treatment of wounds, 46.
 Antisepticism and blood-poisoning, 346.
 Anti-vivisection, 96.
 Anus, perineal artificial, 68.
 Aphasia and agraphia, 555.
 Arkansas Medical Society, officers of, 48.
 Army Medical Service of Great Britain, 192.
 Arteries, new modification of the shot-bag for compression of, 539.
 Ascarides, suffocation from, 326.
 Ascites, transmission of thoracic sounds in, 393.
 Ashurst, Dr. John, Jr., cleft palate and its treatment, 145.
 Asparagus, 552.
 Asphyxia, chloroform, unusually late, 188; resuscitation after a long period of, 597.
 Asthma from reflex causes, 345.
 Asylum management, 541, 565, 618.
 Athetosis, post-mortem in a case of, 612.
 Atkinson, Dr. William B., notice of book by, 592.
 Atlee, Dr. John L., 599.
 Attfield, Dr. John, notice of book by, 64.
 Atropia poisoning, danger of, 242.
 Atropine in opium-poisoning, 120; and urticaria, 227.
 Audiphone, 384, 526.
 Auscultation, history of, 411.
 Automatism, semi-conscious epileptic, 116.

B.

- Bacteria in salt-water marshes, 547.
 Baldness and pili-capiti, 219.
 Ball, F. P., expert testimony, 548.
 Bandage, the pure rubber, 216.
 Barker, Dr. Fordyce, remarks on hospital practice, 521.
 Bartholow, Dr. Roberts, 71; notice of book by, 542; the present state of therapeutics, 337.
 Beane, Dr. Frank D., saccharated chloro-pepsine, 141.
 Beard, Dr. Geo. M., nervous diseases connected with the male genital function, 292, 533.
 Bellevue Hospital, fire at, 576.
 Bellevue Hospital reports, 80, 489, 537, 610.
 Bellevue Hospital Medical College, 336; Alumni Association of, 296; graded course in, 351.
 Berkart, Dr. J. B., notice of book by, 471.

- Bert, Mr. Paul, 415.
 Beverages, moral effect of popular, 232.
 Bigelow, Dr. Henry J., litholapaxy, 306.
 Bigelow, Dr. H. R., the illumination of cavities by Geisler's tubes, 537; ulceration of cervix, salpingitis, anterior and posterior version, 199.
 Billroth, Dr. Theodor, notice of book by, 40.
 Bisulphide of carbon in locomotor ataxia, 339.
 Bladder, urinary, excision of papilloma of, 82; lime-water solvent of blood-clots in, 456; stone in, 449; stigmata of maize and the arenaria rubra in diseases of, 252.
 Blepharitis, its relation to strain of accommodation, 211.
 Blepharospasm, forcible dilatation of the sphincter palpebrarum in, 290.
 Blind, improvement of, 591.
 Blood-poisoning and antiseptic surgery, 346; prevention of, in the practice of surgery, 209.
 Bloxam, Chas., London, notice of book by, 352.
 Bodenhamer, Dr. W., perineal artificial anus, 68.
 Bones, embolism after injuries of, 515.
 Bozeman, Dr. Nathan, remarks on ovariectomy, 51, 73, 99; kolpokleisis for vesico-vaginal fistula, 619.
 Brain, foreign bodies in, 252; pistol-ball encysted in, 540; alcohol in tissue of, 454; tumor of, 36.
 Brandt, Dr. Wm. E., poisoning by a bee-sting, 309; poisoning by rhus rad canis, 47.
 Breasts, abscess of, 513; amputation of, 420.
 Bright's disease, chronic, 118; jaborandi in, 451.
 British Army Medical School, 552.
 British Medical Association, 143, 184, 190, 208, 228; report, obstetric section, 329; section in surgery, 305; Bengal branch of, 598.
 Broad ligament, structure of, 393; cyst of, 596.
 Bromine, vapor of, in croup, 326.
 Brown, Dr. C. W. M., primary cancer of both ovaries, 485.
 Brown, Dr. Geo., notice of book by, 568.
 Brown, Dr. William K., obituary of, 47.
 Brunner's glands, stricture of, 236.
 Bull, Dr. Charles Stedman, inflammation of the frontal sinus, abscess, and fistula, 32.
 Bulletin of the public health, 48.
 Bumstead, Freeman J., M.D., LL.D., obituary, 551, 575.
 Burke, Dr. Martin, cases of Bright's disease treated by jaborandi, 451.
 Burnett, Dr. Charles H., notice of book by, 109.
 Burnett, Dr. Swan M., notice of translation by, 281.
 Burrall, Dr. F. A., diphtheria and benzoate of soda, 572.
 Busey, Dr. Samuel C., anesthesia and hot water in torticollis, 295.
 Butties, Dr. M. S., the metric system and its practical application, 21.
- C.
- Cæcum, hernia of, 115.
 Cæsarian operation, 216, 546; with removal of uterus and ovaries, 441.
 Café noir and menorrhagia, 300.
 Calculus, intestinal, 496; renal, formed of indigo, 393.
 California, medical law of, 528.
 Callan, Dr. Peter A., corneal abrasions, 548.
 Callender, George W., F.R.S., obituary, 431.
 Calomel in eczematous affections, 31.
 Canal of Müller, persistence of, 441.
 Canada, English physicians in, 452.
 Cancer of cervix, 513; primary, of ovaries, 485; precursors of, 622.
 Cantharides, new method of preventing strangury from, 393.
 Canthoplasty and nearly fatal hemorrhage, 487.
 Carbolic acid *versus* alcohol, 46.
 Carcinoma, observations in one hundred cases of, 347; of the liver, 8; of the rectum, 593; uteri, 315.
 Cardiac disease, treatment of organic, 299.
 Caro, Dr. S., speedy cure of nasal polypi, 526.
 Carotid, common, ligature of, for dental hemorrhage, 181.
 Carpenter, Dr. Wm. B., 120.
 Carpenter, Dr. W. M., articles by, 13, 37, 62, 107, 108, 134, 135, 206, 207, 228, 229, 230, 233, 236, 253, 354, 278, 301, 329, 373, 526.
 Carr, Henry, notice of book by, 208.
 Carroll, Dr. A. L., congenital absence of the rectum, 561.
 Cartilages, loose, removal of, from knee-joint, 277.
 Caruncle of the urethra, 513.
 Catalepsy, with typhoid fever, 521.
 Cataract following typhoid fever, 105.
 Catarrh, nasal, prescription for, 262.
 Catheterism, liability in, 120.
 Cascara sagrada, 216.
 Casein, 88.
 Catarrh, lachrymal, 121.
 Cellulitis, pelvic, 298; of neck, 539.
 Cerebral thermometry, 130.
 Cerebro-spinal centres, destruction of, 333.
 Cerebrum, ophthalmoscope in the diseases of, 215.
 Cerium, oxalate of, in pertussis, 58.
 Cervix uteri, anatomical proof of persistency of, in pregnancy, 277; cancer of, 513; conical, 512; elongation of, 390; laceration of, 313; shortening by tissue-sliding, 193; tubercles of, 180; ulceration of, complicating salpingitis, 199.
 Chamberlain, Dr. W. M., compound gelatine medicated tents, 335; flexible vulcanite, 450.
 Chambers, Dr. T. Roland, 390.
 Chancre, ocular, 204.
 Chancroid, class-room lessons, 223, 273, 321.
 Chandler, Dr. C. F., 550.
 Change of name, 263.
 Chapin, Dr. Reuben Spencer, obituary of, 143.
 Chapman, Dr. E. N., milk with lime-water in scrofulosis, 175.
 Chapman, Dr. Henry, 504.
 Chassaignac, M., 470.
 Chemistry, higher walks of, 600.
 Chest-development and consumption, 547.
 Chicago Gynecological Society, 137, 546.
 Chicago Medical Gazette, 592.
 Chicago Medical Journal and Examiner, 157.
 Chicago Medical Society, 138.
 Chicago sanitary interference, 590.
 Children's Hospital, Philadelphia, 154.
 Chiropodists, 139.
 Chloral hydrate, antagonistic and antidotal powers of, 83; in diphtheria, 48.
 Chloral poisoning and amyl nitrite, 156, 519.
 Chloride of barium in the treatment of internal aneurism, 300.
 Chloroform for worms in the nasal cavity, 326.
 Chloro-pepsine, saccharated, 141.
 Chlorosis, treatment by oxygen and iron, 456.
 Cholecystotomy, 14, 60, 452.
 Cholera infantum, treatment of, 27, 168.
 Cholera in India, 455; in Japan, 190, 263, 576; jaborandi in, 251; protozoine in, 251.
 Chorea, cerebral complications of, 220; minor, 521; treatment of, 157.
 Churches, ventilation of and spread of contagious diseases, 614.
 Cinchona alkaloids and opium, 38.
 Cinchona, red, in drunkenness, 226.
 Cities, sewerage and drainage of, 522.
 Clapp, Dr. Herbert C., notice of book by, 255.
 Clavicle, new apparatus for fracture of, 310.
 Cleft palate, 145.
 Clements, Dr. B. A., compound dislocation of ankle-joint, with fracture, 342.
 Clergymen, gratuitous services to, 565, 598.
 Clifford, Dr. William Kingdon, notice of book by, 493.
 Climate of Nice, 181; of Texas, 574.
 Climatology, 450.
 Coccyx, bony tumor of, 496.

Code, violation of, 229.
 Codeine and diabetes, 316.
 Cod-liver oil, Scott's emulsive, 178.
 Cohen, Dr. J. Solis, notice of book by, 89, 568.
 Collars, poisonous paper, 394.
 College of Physicians and Surgeons, 336.
 Columbus Medical College, 32.
 Columbia Veterinary College, 386.
 Conia, hydrobromate of, 394.
 Constipation, habitual, 514.
 Consultation, doctor not in, 528.
 Consultations, ethics of, 421.
 Consulting Board for Lunatic Asylums, resolution regarding, 446.
 Consumption, increase of, in southern latitudes, 479.
 Convulsions, puerperal, treatment of, 144; puerperal, jaborandi in, 307.
 Cooper, Dr. William, notice of death of, 119.
 Corneal abrasions, 548.
 Cornea opacity of, and gonorrhoeal ophthalmia, 155.
 Corneitis, oyster-shuckers, 83.
 Cornwell, Dr. Henry G., forcible dilatation of the sphincter palpebrarum in blepharospasm, 296.
 Corpus luteum, 162.
 Coto bark, 180.
 Cotton as a fomite, 523.
 Cowling, Dr. James, treatment of yellow fever, 262.
 Crampton, Dr. Henry E., provident dispensaries, 140.
 Cranium, syphilitic periostitis of, 214.
 Cremation, 48.
 Croup, bromine vapor in, 326; membranous and diphtheria, 594.
 Curare, successful use of, in a case of hydrophobia, 124.
 Cushier, Dr. Elizabeth M., epithelioma of the vulva, 440.
 Cyst, diagnosis of ovarian, 514.
 Cystitis in female, 513; in the male, 84.

D.

Da Costa, Dr. J. M., amnesic aphasia and agraphia, 555; typhoid fever, 505; apoplexy, 580.
 Dandruff, treatment of, 73.
 Darling, Dr. William, 72.
 Darwin, Charles, 136.
 Dawson, Dr. W. W., tarsal osteitis, 582.
 Deafness, sudden, from syphilis, 279.
 Death in the profession, 38.
 Death in surgical operations, causes of, 4.
 Decapitation, new method of performing, 883.
 Delafield and Stillman, notice of book by, 110.
 Dementia, 434, 577.
 De Rosset, Dr. M. J., 504.
 Detroit Medical College, 527.
 Diabetes mellitus, bilateral neuro-retinitis descendens in, 86; codeine in, 316; with lesion of the pancreas, 587.
 Diarrhoea, chronic, treatment of, 489; dysenteric, 27; flatulent, 26; infantile, treatment of, 87; therapeutics of, in children, 25.
 Diet, Chinese idea of, 478.
 Dilator of speculum, urethral, 263.
 Dipomania and drunkenness, 215.
 Diphtheria, 269; benzoate of soda in, 572; in Brooklyn, 504; chloral hydrate in, 48; epidemics, 527; etiology of, 219; in lower animals, 456; and milk, 564; membranous croup, 594; prize essay on, 215; Russian remedy for, 518; treatment of, 251, 276, 479; tracheotomy in, 612.
 Disease, causes of, 107.
 Diseases of the skin, free course of lectures on, 360.
 Disinfection and the National Board of Health, 339.
 Dispensary, the National, notice of, 398.
 Dispensary attendance, decrease in, 532.

Dispensaries, provident, 140.
 Diverticulum, 114.
 Divulsion, slow, in treatment of strictures of the urethra, 103.
 Doctors' bills, collecting of, 312.
 Doctor's fee and the way of the world, 600.
 Doctors in Memphis, 388.
 Doctor not in consultation, 528.
 Dorrin, Dr. W. M., fracture of femur, 283.
 Dosage of electricity, 43.
 Douglas, Dr. Geo. C., exophthalmic goitre, 285.
 Douglas' pouch, hæmatoma of, 514.
 Dowse, Dr. Thomas Stretch, notice of book by, 238. |
 Dropsy, tapping in, 34.
 Druggists, percentage from, 506; women as, 514.
 Drunkards, care of habitual, 302.
 Drunkenness and dipsomania, 215.
 Duboisin, poisoning by, 346.
 Durant, Dr. Ghislani, notice of book by, 568.
 Duty on cinchona alkaloids, 37.
 Dyer, Dr. John I., a case of double ovariectomy, 200. |
 Dykeman, Dr. H. E., 31.
 Dysentery, chronic, treatment of, 297.
 Dyspnoea, cardiac, 394.
 Dyspepsia, action of digestive ferments in, 371.

E.

Ear, aneurism of auricle of, 300.
 Ear and throat instrument case, 407.
 Eclampsia, pilocarpine in, 455.
 Eczema of palm, 251.
 Editorial changes, 480.
 Edwards, Dr. Emma Ward, the raw-hide jacket for spinal disease, 406.
 Elbow-joint, exsection of, 571; sub-periosteal excision of, 400.
 Eldridge, Dr. Stuart, the Eamarch bandage in strapping the testicle, 331.
 Electricity, medical, automatic, 540; dosage of, 43; in extra-uterine pregnancy, 382; a paralyzing agent, 416, 476, 549.
 Electrology and Neurology, Journal of, 336.
 Electro-magnetic machine, 22.
 Electro-therapeutics and the American Neurological Association, 118, 166, 237.
 Elmer, Drs. Wm. and A. D., notice of book by, 592.
 Ely, Dr. Wm. S., lithotripsy with evacuation of fragments, 475.
 Embolism after injuries of bones, 515; fatty, 442; of lungs, following fractures, 60.
 Empyema, 589; acute, 489, 611.
 Emulsion, phosphoric, in phthisis, 24.
 Endocarditis, 521.
 Endometrium, fungous vegetations of, 512.
 England, proposed new medical school in, 240.
 English medical students, 12, 183.
 English naval medical service, 455.
 Entropion and trichiasis, 420.
 Epidemics, prison, 576.
 Epilepsy, note on a case of, 214, 263.
 Episcleritis, eserine and pilocarpine in, 252.
 Episcopal Hospital, Philadelphia, 468.
 Epithelioma of vulva, 440.
 Epithelium, changes in renal in Bright's disease, 133.
 Ergot, local use of, 563.
 Erysipelas, 585; of the skin, 594.
 Eserine in episcleritis, 252; in glaucoma, 288.
 Ether, early discovery of anæsthetic properties of, 117.
 Ethics of consultations, 421.
 Excision *vs.* évitement, 582.
 Excremental diseases, 442.
 Exophthalmic goitre, 1, 355, 610.
 Exophthalmus, 402.

Experiences of a successful practitioner, 212, 261, 356; reviewed, 405, 621.
 Extirpation of the bones of the nose and mouth, 28.

=

F.

Faradism in suspended animation, 156.
 Faradization and purpura hemorrhagica, 419.
 Fat in urine in pyonephrosis, 300.
 Fehr, Julius, concerning so-called patented medicines, 548.
 Femur, eversion of limb after fracture of neck of, 305; fracture of, treated by immediate extension, 283; excision of head of, in intra-capsular fracture, 569.
 Fergus, Dr., honors to, 552.
 Fevers, heat in the treatment of, 414.
 Fever, intermittent, and pilocarpine, 150.
 Finley, Dr. Clement A., 264; obituary, 287.
 Fistula, cutaneous biliary, 36; vesico-vaginal, 512.
 Flexible vulcanite, 450.
 Flint, Dr. Austin, notice of book by, 425; self-limitation in phthisis, 65.
 Flower charity, New York, 527.
 Fomite, cotton as, 523.
 Forceps, artery and torsion, 451; obstetric, early application of, 380.
 Fothergill, Dr. J. Milner, 140.
 Fournier, Dr. Edouard, notice of book by, 494.
 Fowler, Dr. Ezekiel, new hospital by, 504.
 Fox, Dr. George Henry, notice of work by, 208, 304.
 Fox, Dr. William Tilbury, obituary, 23.
 Fox, Drs. Tilbury and T. C., notice of book by, 65.
 Fractures, fatty embolism of lungs following, 60.
 Fracture of the leg, slow union, 389; punctured at base of skull, 56.
 Friedrich, J. J., pathogenetic bacteria in salt-water marshes, 547.
 Frontal sinus, inflammation, abscess, and fistula of, 32.
 Fucusine as a therapeutic agent, 291.
 Fucus vesiculosus, 622.
 Fulton, Dr. J., notice of book by, 238.
 Funia, treatment of, 513.

G.

Gaillard, Dr. E. S., 455.
 Galvani, 622.
 Galvanic current in exophthalmic goitre, 317.
 Galvanism and opium habit, 129; in scleroderma, 181.
 Galvano-cautery, use of, in removal of adenoid growths, 243.
 Gargling, von Tröltsch's method of, 616.
 Garland, Dr. G. M., negative pressure, 639.
 Geddings, Dr. W. H., report of cases of phthisis, 430.
 Geissler's tubes, illumination of cavities by, 537.
 Gelatine, pharmaceutical use of, 528.
 Genu-valgu n. operative treatment, 490.
 German Hospital, Philadelphia, 467.
 Gibbs, Dr. B. T., 503.
 Gihon, Dr. O. L., 503.
 Gilman, Dr. John H., diphtheria, 269.
 Glaucoma, cases of, 370.
 Glaucoma and eserine, 288.
 Goddard, Dr. C. C., hydrophobia, 152.
 Goitre, exophthalmic, 285; galvanic current in, 317; retro-pharyngeal extirpation of, 155.
 Gold-platinum staining in microscopy, 48.
 Gonorrhoea, treatment of, 120.
 Goodell, Dr. William, fibroid tumors of the uterus, 265; notice of book by, 184.
 Goodfellow, Dr. G. E., cause of sudden death in thoracentesis, 470.

Goodwillie, Dr. D. H., extirpation of the bones of the mouth and nose by the use of the surgical engine, 28.
 Gouley, Dr. J. W. S., internal urethrotomy and lithotripsy, 363; retention of urine in elderly men, 169.
 Gout, quinine in, 156.
 Graham, Dr. Douglas, the history of massage, 147, 171.
 Gray, Dr. L. C., electro-therapeutics, and the American Neurological Association, 237.
 Green, Dr. T. Henry, notice of book by, 109.
 Greene, Dr. William H., notice of translation by, 109.
 Greenup, Mrs. W. T., notice of book by, 207.
 Griswold, Dr. Gaspar, pilocarpine and intermittent fever, 150.
 Gross, Dr. S. D., notice of monograph, 208.
 Gualiacum in hæmaturia, 563.
 Gurjun balsam, 557.
 Gynecology, as related to insanity in women, 381; lessons in, 216.

H.

Habershon, Dr. S. O., notice of book by, 83, 399.
 Hachenberg, Dr. Geo. P., lithotripsy by surgical engine, 449.
 Hæmacytometer in anemia, 82.
 Hæmatoma of Douglas's pouch, 514.
 Hæmaturia, gualiacum in, 563.
 Hahnemann Medical College of Chicago, 120.
 Hairs, method of removing, 204.
 Hall, Dr. F. De Havilland, notice of book by, 110.
 Hamilton, Dr. J. W., comparative size of graduating classes in medicine, 70.
 Hammond, Dr. Wm. A., 57, 288.
 Hanks, Dr. H. T., suppurative peritonitis, 583.
 Harlan, Dr. Geo. C., notice of book by, 494.
 Harvard Medical School, women in, 123.
 Harvey's remains, 384.
 Havana, and the Commission appointed by the National Board of Health, 96.
 Hay fever, 206, 448; new remedy for, 552.
 Health boards, irregular practitioners on, 528.
 Health and morality, influence of marriage on, 215.
 Health and recreation, 254.
 Heart, displacement of, by ascites, 81.
 Heat and cold to the spine in uterine inertia, 47.
 Heat in the treatment of fevers, 414.
 Heath, Christopher, notice of book by, 399.
 Heaton, Dr. George, obituary of, 94.
 Hematoidin in urine, 300.
 Hemiplegia, spasmodic infantile, 217.
 Hemming, Dr. W. Douglas, notice of book by, 548.
 Hemingway, Dr. S., the plaster-of-Paris corset, 487.
 Hemorrhage, in canthoplasty, 487; dental, ligature of common carotid for, 181; novel method of controlling it in amputations of the hip, 215; post-partum, treatment of, 144; puerperal, 70; rectal, in infancy, 308, 454; hemorrhoids, external, 34; new operation in, 167.
 Hernia, cure by a new instrument, 305; treatment by injection, 367.
 Higgins, Charles, notice of book by, 399.
 Hip-joint, fatal case of disease about, 484.
 Hip-joint disease, mechanical treatment of, 543.
 Hodgkin, Dr. Jas. B., stone in the bladder, 449.
 Hoffman, Dr. A. C., heat and cold to the spine in uterine inertia, 47.
 Hoffman, Dr. A. C., prolonged retention of life in the new-born, 449.
 Hoffman and Ultzman, notice of book by, 543.
 Holmes, Gordon, notice of book by, 493.
 Holmes, Dr. Oliver Wendell, 390.
 Homœopathy in Camden Co., N. J., 480.
 Homœopathic Insane Asylum, 526.
 Hood, Dr. Peter, notice of book by, 109.

Hospital Bible, Fruit, and Flower Mission, 37.
 Hospital, London Temperance, 165; new Marine, 143: pay-patients, 444; of the University of Pennsylvania, 298, 466.
 Hospital Sunday, 518.
 Hospitals and alcohol, 240; legal liabilities of, 469.
 Howland, Dr. H. H., 419.
 Hughes, Dr. C. H., semi-conscious epileptic automatism, 116.
 Humerus, erect luxation of, 400; sarcoma of, 584; osteo-myelitis of, 213.
 Hunt, Dr. C. H., poisoning by inoculation from an animal, 536.
 Hutchinson, Dr. Wm. F., opium habit and galvanism, 129, 286.
 Hydroa and iodide of potassium, 281.
 Hydrophobia, 152, 216; successfully treated, 124.
 Hygiene, International Congress of, 525; museum of, 108; and public health, notice of treatise on, 260, 303; report on, 471; school, 61.
 Hypertrophy, chronic, of tonsils, 606.
 Hypochondria, true and false, 533.
 Hypoglossal, functions of nuclei of, 393.
 Hypophosphites and phthisis, 348.
 Hysteria, in boys, 587; metallotherapy in, 515; somnambulic and cataleptic condition in, 82.
 Hysterotomy in treatment of fibrous tumors, 622.

I.

Ice, instrument for shaving, 236; new method of using, 306.
 Ice-bag, Japanese paper, 190.
 Idiocy, 577.
 Ileum, indentation of, 211.
 Illumination of cavities, 537.
 Imbecility, 577.
 Inebriety, alcoholic, 92; and sunstroke, 24.
 Inertia, uterine, heat and cold to the spine in, 47.
 Inflammation, chronic suppurative, of the middle ear, 73, 97; of the frontal sinus, 32.
 Inhaled substances, experimental investigations on, 133.
 Inoculation from an animal, 536; mephitic, 152.
 Insane Asylum Consulting Board, 384.
 Insane, care of, 480; commitment of persons to hospitals for, 479; hospital for, at Norristown, Pa., 360; tendon-reflex in, 45.
 Insanity, definition of, 433; and matrimony, 240.
 Instruments of precision, 469.
 International Congress of Medical Science, 396.
 Intestines and peritoneum, notice of work on, 64.
 Intestinal affections in children, 281.
 Intestinal obstruction, symptoms and treatment, 442.
 Intra-uterine medication, 329, 330, 375.
 Irritation, cerebral, as a source of nerve-power, 558.
 Iron, albuminate of, 36, 515.
 Itching, relief of, 104.

J.

Jaborandi and Bright's disease, 451; in cholera, 251; in puerperal albuminuria and convulsions, 33, 307.
 Jacobi, Dr. A., exophthalmic goitre occurring in a child and followed by St. Vitus' dance, 1; on treatment of infantile diarrhoea, 87; typhoid fever in infancy and childhood, 385, 409.
 Jacobi, Dr. Mary-Putnam, note on cause of sudden death during operation of thoracentesis, 139, 331.
 Jeançon, Dr. J. A., notice of atlas by, 507.
 Jefferson Medical College Hospital, 34.
 Jefferson Medical College, 504.
 Joints, aloes in the treatment of wounds of, 300.
 Joint diseases, etiology of, 305.

Jones, Dr. Samuel, notice of book by, 471.
 Journalism, conservative, 374.
 Journalistic changes, 599.

K.

Kane, Dr. John J., syphilitic periostitis of the cranium, 214.
 Kava-Kava, 106.
 Keller, Dr. J. M., alcoholic inebriety, 92.
 Kennard, Dr. Thomas, 576.
 Keratitis, 241; phlyctenular treatment of, by the galvanocautery, 358.
 Keyt, Dr. A. T., the sphygmographic indications in aneurism, 507.
 Kidd, Dr. James, notice of book by, 471.
 Kimball, Dr. Gilman, 303.
 Kirkbride, Dr. T. S., 504.
 Klein, F. Smith, notice of atlas by, 110.
 Knee-joint, chronic inflammation of, 521; removal of loose cartilages from, 277.
 Kolpo-cystotomy, 379.
 Kolpokleisis and vesico-vaginal fistula, 619.
 Kolpocetasis *versus* kolpokleisis, 383.
 Kuinysa, imitation, 157.

L.

Labor, mismanaged, the source of gynecological practice, 382; painless, 504, 600.
 Landolt, Dr. E., notice of book by, 281.
 L'Année médicale, notice of, 352.
 Laparotomy, three operations in three years, 11.
 Lardaceous degeneration, 422.
 La Rue, Dr. J. Alexander, puerperal hemorrhage, 70.
 Laryngoscope, 181.
 Larynx of leper, 112; of oesophagus, 284; and pharynx, 395.
 Lateral curvature of the spine, the mechanics of, 94.
 Lathrop, Dr. G. H., retained placenta, 309.
 Lefferts, Dr. Geo. M., commoner affections of the tonsils, 601.
 Lemoyne, Dr. T. Julius, cremation of, 406.
 Lente Dr. F. D., climatology, 450.
 Leo, Dr. Simeon N., new operation in prolapsus recti and external hemorrhoids, 167.
 Leonard, Dr. C. Henri, notice of day-book by, 567.
 Leper in middle ages, 384.
 Leprosy, 72.
 Leukæmia and priapism, 227.
 Liautard, Dr. A., notice of book by, 352.
 Library of the Faculty of Medicine in Paris, 384.
 Lindsley, Dr. Van S., a case of osseous tumor in orbital cavity successfully removed, with preservation of sight, 124.
 Life, lowest forms of, 452.
 Ligament, structure of the broad, 396.
 Lime salts, therapeutic administration of, 155.
 Lime-water and blood clots, 456.
 Lipomata, multiple congenital, 521.
 Listerism *versus* the open method, 347; in Germany, 622.
 Litholapaxy, 150, 306.
 Lithotripsy, rapid, 365, 402; and internal urethrotomy, 363.
 Lithotripsy with evacuation, 158, 182, 475; in the female, 593; by surgical engine, 449.
 Little, Dr. James L., combined table and lounge, 70.
 Liver, carcinoma of, 8; cirrhosis of, complicated, 59; presentation of, in an obstetric case, 439.
 Locomotor ataxia, bisulphide of carbon in, 539.
 London Lancet and the controversy on spasmodic stricture, 574.

Long Island College Hospital, 24.
 Louisville, the way it was done in, 504.
 Long, Dr. Crawford W., honor to, 168, 230, 236.
 Lumbo-colotomy, 560; for non-malignant disease, 538, 621.
 Lunacy reform, 552; meeting, 614.
 Lung, cancer of, 495; gangrenous, 520.
 Lupus, of face, 496; and salicylic acid, 227.
 Lyman, Dr. Henry M., State medicine, 435, 572; State protection for syphilophobists, 222.
 Lymphadenoma of testicle, 371; spontaneous disappearance of, 587.
 Lymphatics of muscles, 106.

M.

Macalister, Dr. Alexander, 574.
 Macdonald, Dr. A. E., lecture on mania, 433; on melancholia, 481; on dementia, idiocy, and imbecility, 577.
 Malaria and carbolic acid, 419.
 Malarial germ, a new, 373.
 Malpractice, suits of, 591, 599.
 Manhattan Eye and Ear Hospital, 504.
 Mania, clinical lecture on, 433; acute, 434; recurrent chronic, without delirium, 435.
 Manley, Dr. T. H., rectal hemorrhage in infancy, 306.
 Marine hospital service, board of examiners of United States, 72; United States, 613.
 Marrow, bony, a hæmatopoëtic organ, 11.
 Martin, Dr. Henry D., does successful vaccination prove that small-pox has not been recently experienced? 93.
 Mason, Dr. Erskine, dislocation of the patella, 389.
 Massachusetts Health Board, 575; Medical Society, 528.
 Massage, history of, 147, 171.
 Mather, Dr. E. E., laborandi in puerperal convulsions, 307.
 Matrimony and insanity, 240.
 Mattison, Dr. J. B., opium habituation, 332.
 Maunsell, Dr., 516.
 Maynard, Dr. Wm. J., psoriasis, 553.
 McClintock, Dr. Alfred H., 599.
 McFall, Dr. D., 405.
 McWithey, Dr. Edward L., obituary, 432.
 Measles in New York, 583.
 Medical college, a new, 456, 493; of Ohio, 480; United States, number of graduates from, in 1878, 72.
 Medical corps of U.S.A., qualifications for entering, 71.
 Medical department of Yale College, 192, 432.
 Medical ethics, 532, 526.
 Medical Herald, 480.
 Medical history of the war, 589.
 Medical inspection for sick children, 184.
 Medical office in India, 576.
 Medical receptions, 591.
 MEDICAL RECORD, new type for, 470.
 Medical researches, 527.
 Medical schools in Philadelphia, opening of winter sessions of, 359.
 Medical Society of the county of New York, 19, 87, 163, 471, 545; officers of, 432.
 Medical Society, the Inter-state, 504; the Tri-state, 480.
 Medical students, 575; lady, 536; preliminary education for, 312.
 Medical teaching, 301.
 Medical Union, 571.
 Medicine, comparative size of graduating classes in, 70.
 Medicine, frozen, 480.
 Medicine in Louisville, 455.
 Medicine, preparatory schools of, 348.
 Medicines, proprietary, 573; so-called patented, 548.
 Medico-legal case of interest, 20.
 Meigs, James Aitken, M.D., obituary, 502.

Melaleuca paraguayensis, 132.
 Melancholia, 433, 481.
 Memphis, appeal for aid for, 254; sanitary inspection of, 580.
 Meningo-myelitis, 289.
 Menopause unusually delayed, 531.
 Menorrhagia and café noir, 300.
 Menthol as an anti-neuralgic, 576.
 Mercer, Dr. A. Clifford, report by, 49.
 Merritt, Dr. John, creasylic acid in whooping-cough, 549.
 Metalloscopy, 447.
 Metallothrapy in hysteria, 515.
 Metallothrapy, 43, 622.
 Metric system and its practical application, 21; in England, 371.
 Metropolitan Throat Hospital, 419.
 Metrorrhagia, treatment of, 360.
 Meyer, Bertha, notice of book by, 65.
 Meyer, Dr. Joseph, report of case of pharyngeal stricture, 170.
 Middle ear, chronic suppurative inflammation of, 73, 97.
 Midwifery, record of two thousand cases, 491.
 Milk and diphtheria, 564.
 Mills, Dr. Chas. K., meningo-myelitis from traumatism, 289; paralysis and hemiplegia, spasmodic infantile, 217; transverse lesion of spinal cord, 361.
 Mitchell, Dr. S. W. B., obituary of, 238.
 Moles, flesh and villous, 260.
 Molluscum Verrucosum, 258.
 Moore, Dr. William Oliver, ophthalmia neonatorum, 272.
 Morality and health, influence of marriage on, 215.
 Morbus coxarius, apparatus for, 197.
 Morbus Winckelii, 325.
 Morjé, Dr. Benjamin, on the use of oxalate of cerium in pertussis, 58.
 Morphine, bromhydrate of, 324; hypodermic injection of, 288.
 Morris, Dr. Henry, notice of book by, 63.
 Mortality, rate of, in the city of New York, 134.
 Morton, Dr. Wm. J., the "discoverer" of anæsthesia, 431; traumatic dislocation of cervical vertebra, 320.
 Mt. Sinai Hospital, 521, 527.
 Mucous membrane, uterine, fungoid degeneration of, 315.
 Mudd, Dr. J. A., determination of sex in utero, 448.
 Murchison, Charles, M.D., LL.D., F.R.S., lecture by, 49; memorial to the late Dr., 83.
 Murray Dr., wife of Rev. W. H. H., 504.
 Muscle-beating in infantile paralysis, 216.
 Muscles, chronic affections of and trichinosis, 319; lymphatics of, 106.
 Myelitis, acute central, 535; subacute, 523.
 Myositis ossificans, progressiva, 276.
 Myxædema, 276, 516.

N.

Nævi, tattooing of, 257.
 Nasal septum, necrosis of, 585.
 National Academy of Sciences, 528.
 National Board of Health, 85, 334, 425; and disinfection, 239; and homœopathy, 142, 358; volunteer surgeons under authority of, 108.
 National Medical Library, 522.
 Naturalists and physicians, German, 455.
 Naylor, Dr. William Hamilton, a case of chronic dysentery, 297.
 Neck, cellulitis of, 539.
 Neftel, Dr. Wm. B., electricity a paralyzing agent, 476.
 "Negative pressure," 308, 609.
 Nerve, paralysis of the recurrent laryngeal, 35; sup. max., neurotomy of, 468; ulnar, sutural function of, 60.
 Nerve-power, cerebral irritation as a source of, 553.
 Nervous centres, syphilitic affections of, 156.

Nervous diseases and male genital functions, 292, 538.
 Neuralgia, pelvic, 529; trigeminal, 498.
 Neurasthenia and womb-disease, 81.
 Neuro-retinitis, bilateral, descendens, 86.
 Neurotomy of sup. max. nerve, 468.
 New-born, prolonged retention of life in, 449.
 New Hampshire Medical Society, 13, 264, 384.
 New remedies, 216.
 New York Academy of Medicine, 65, 119, 312, 350, 353, 428, 499, 520, 543, 568, 615, 617.
 New York Hospital, 390.
 New York Medical Journal, 599.
 New York Neurological Society, 446, 524.
 New York Pathological Society, 91, 111, 160, 187, 209, 260, 303, 400, 473, 494, 519, 570, 593; notice of transactions, 592.
 New York Therapeutical Society, 453.
 Nipples, sore, 513.
 Nitrate of silver in treatment of sciatica, 394.
 Nurses, directory for, 575; order for, 94; trained, 576.

O.

Obstetric case, an interesting one, 439.
 Obstetrical practice among the Japanese, 575; in Siam, 110.
 Obstetrical Society of London, 233.
 Ocimum basilicum, 325.
 Œsophagus and larynx, 284.
 Ophthalmia, gonorrhœal, and opacity of cornea, 155.
 Ophthalmia neonatorum, 272, 391.
 Ophthalmic and aural institute, notice of report, 65.
 Ophthalmoscope in cerebral disease, 215.
 Opium and cinchona alkaloid, 38.
 Opium asylum, Foochow, 264.
 Opium habituation, 332.
 Opium habit and galvanism, 129.
 Opium-poisoning, atropine in, 120.
 Orthopædic surgery, contributions to, 196.
 Os calcia, removal of, 387.
 Osteitis, tarsal, 582.
 Osteotomy, subcutaneous, 516.
 Otis, Dr. Fessenden N., class-room lessons on chancroid, 223, 273, 321.
 Otitis media, 521.
 Otitis purulent, 564.
 O'Toole, Dr. M. C., control of tongue during laryngoscopic operations, 363.
 Otorrhœa, chronic, permanganate of potassa in, 251.
 Out-door poor relief, 384.
 Ovaries, prolapse of, 377; prolapse of both, 512; primary cancer of, 485.
 Ovaritis, chronic, 529.
 Ovariectomy, 513; double, a case of, 200; and cold affusions, 343; remarks on, 51, 75, 99.
 Ovary, adeno-cystic tumor of, 111.

P.

Pain, chronic, ointment for, 204.
 Pallen, Dr. Montrose A., vagino-cervioplasty, 198.
 Pancreatic duct, obliteration of, 402.
 Pancreas, lesion of in diabetes, 585.
 Papilloma of bladder, excision of, 82.
 Paracentesis pericardii, 347.
 Paralysis agitans, unilateral, 347; infantile muscle-beating in, 215; pseudo-hypertrophic spinal, 240; spasmodic infantile, 217.
 Paraphimosis, treatment of, 535.
 Paresis, general, 434.
 Parker, Dr. W. Thornton, a new vaginal and rectal syringe, 28.
 Paronychia, 165.
 Patella, dislocation of, 389.

Peckham, Dr. Walton H., 576.
 Pelletierine, tannate of as a tæniacuge, 226.
 Penis, singular affection of, 611.
 Pennsylvania Hospital report, 104, 144, 391, 468, 575; staff of, 504.
 Pennsylvania State Hospital, 288.
 Pepsine, a new vegetable, 480.
 Peptones, nutritive value of, 19.
 Perimetritis, 514, 546.
 Perineum, laceration of, 512.
 Perioritis, syphilitic, of the cranium, 214.
 Peritonitis, pelvic, 298; suppurative, following pelvic, 583.
 Pertussis, oxalate of cerium in, 58.
 Pest, the Oriental, 277.
 Peugnet, Dr. Eugene, 452; obituary of, 383.
 Phalanx, restoration of terminal, 165.
 Pharmacopœial remedies, 475, 501.
 Pharynx, adenoid growths in vault of, 243; and larynx, 395; stricture of, 179.
 Philadelphia Academy of Natural Sciences, 498.
 Philadelphia College of Physicians, 17.
 Philadelphia Hospital, 130, 179.
 Philadelphia Pathological Society, notice of transactions of, 353.
 Philadelphia, sanitation in, 240.
 Phillips, Dr. C. D. F., notice of book by, 351.
 Phlebitis, suppurative, 473.
 Phthisis, laryngeal, 454, 479; pulmonary, antimony in, 255; and chest development, 547; chest mensuration in, 105; crude petroleum in, 359; early symptoms of, 538; hypophosphites in, 348; increase of, in southern latitudes, 479; phosphoric emulsion in, 24; report of cases, 463; self-limitation in, 65.
 Physical examination of seamen, 48.
 Physicians for sick children, 48.
 Piffard, Dr. H. G., notice of book edited by, 351; medical ethics, 502.
 Pilocarpin and baldness, 219; in children's diseases, 227; in eclampsia, 455; in episcleritis, 252; in intermittent fever, 150.
 Pine Ridge Papers on "Successful Practitioner," 212, 261, 356, 621.
 "Pithing," effects of, on the vascular system, 248, 404.
 Placenta, fatty degeneration of, 162; retained, 309; waxy degeneration of, 91, 594.
 Plague, the, 59, 198.
 Plague in Russia, 576.
 Plaster-of-Paris corset, 487.
 Plaster-of-Paris, to remove from hands, 528.
 Pleurisy, circumscribed, 499; and pneumonia, 474; differential diagnosis, 504.
 Pleuro-pneumonia, 503; contagious, 443, 552.
 Pneumatic apparatus, new form of, 190.
 Pneumonia, aconite in, 120; chronic, 521; and pleurisy, differential diagnosis of, 474.
 Poisoning by bee-sting, 309; by inoculation, 536.
 Polypi, speedy cure for nasal, 526.
 Pomeroy, Dr. O. D., on chronic suppurative inflammation of the middle ear, 73, 97.
 Pons and crus, gummy tumor of, 498.
 Poole, Dr. Thomas W., cerebral "irritation" as a source of nerve-power, 559; effects of "pithing" on the vascular system, 248, 404; electricity as a paralyzing agent, 416, 549.
 Poore, Dr. Charles T., a fatal case of disease about the hip-joint, 484; removal of the os calcia, 387.
 Porro's operation, 441.
 Porter, Dr. Wm., asthma from reflex causes, 345.
 Post, Dr. A. C., ulceration and contraction of the rectum from dysentery, 560.
 Post, Dr. George E., slow union of fracture of the leg, 389; knighted, 599.
 Pott's disease, apparatus for, 196; mechanical treatment of, 327, 349; removable paper brace for treatment of, 163; syphilitic, 157.
 Potassa, permanganate of, in chronic otorrhœa, 251.

Potassium, bromide of, external application, 326; poisoning by chlorate of, 454; iodide and bulbous eruption, 281.

Practitioner, experiences of a successful, 212, 261, 356; reviewed, 405, 621.

Pregnancy, cicatrices of, 377; epiphides of treatment by chrysophanic acid, 372; extrauterine, treated by electricity, 382; Fallopian, 162; persistency of cervix uteri in, 277; pop-corn in the nausea of, 528; vomiting of, 288, 419; with antelexion, 532.

Prescott, Dr. Albert B., notice of book by, 567.

Prescriptions, act regarding duplicating, 583; improper use of physician's, 207.

Preston Retreat Hospital, 512.

Preventive medicine, 253.

Priapism and leukæmia, 227.

Proceedings of the Connecticut Medical Society, 256.

Professor, selection of a, 566.

Prolapsus recti, new operation in, 167.

Pronoun "we," use of, 549.

Prophylaxis, venereal, 824.

Prostatorrhœa, with stricture, 85.

Prostitution, regulation of, 205.

Protocaine in cholera, 251.

Pruritis vulvæ, 527.

Psoriasis, 553.

Public Health Association of Boston, 240.

Public Health Association, plan for a National, 478.

Puerperal convulsions and laborandi, 83, 307.

Puerperal fever, 513.

Purpura hemorrhagica and faradization, 419.

Pus in the urine, causes of, 49.

"Put it on at once," 48.

Putzel, Dr. L., cerebral complications of chorea, 220; notice of translation by, 304.

Pyæmia, combating by operative method, 442.

Pyonephrosis with fat in urine, 300.

Pyo-thorax, acute, 489, 611.

Q.

Quackery in New York, 312; concerning the law against, 492.

Quacks and regulars, 70.

Quarantine, international, 398; newly-appointed in the Delaware river, 360; New Orleans, 574; station on Delaware river, 311.

Quinine, foreign, 454; in gout, 156; solution of, in stomach, 312.

Quinsy sore throat, 601.

R.

Rabies, 454.

Ranney, Dr. A. L., causes of death in surgical operations, 4.

Raw-hide jacket for spinal disease, 406.

Recreation and health, 254.

Rectum, carcinoma of, 593; congenital absence of, 561; excision of, 267; fissure of, 514; ulcer of, 240; ulceration of, following dysentery, 560.

Resuscitation of drowned persons, 347.

Reyburn, Dr. Robert, state medicine, 500.

Rheostat, 15.

Rheumatism, acute articular, 611.

Rhoads, Dr. M. A., supra-condyloid amputation of thigh, 511.

Rhode Island Medical Society, 264.

Rhus radicans, poisoning by, 46, 117, 284.

Rice, Charles, notice of book by, 40.

Richardson, Dr. B. W., notice of manual by, 352.

Richardson, Dr. J. G., notice of book by, 255.

Robinson, Dr. Beverley, note on the cause of sudden death in thoracentesis, 188.

Robinson, John, M. D., obituary of, 508.

Rockwell, Dr. A. D., on the value of the galvanic current in exophthalmic goitre, 317; reply to Dr. J. D. S. Smith, 166.

Roe, Dr. J. O., adenoid growth in the vault of pharynx, 243.

Roosa, Dr. D. B. St. John, keratitis; its relation to the general condition of the patient, 241; lachrymal catarrh, 121.

Rosacea, method of obstructing the veins in, 259.

Royal Sanitary Commission, 528.

Rush Medical College, 452, 575.

S.

Salicylic acid and tape-worm, 325.

Salpingitis complicated by ulceration of the cervix, 199.

Sanitation at Memphis, 566, 580; municipal, 523; in Philadelphia, 240.

Sanitary convention and exhibition, 575; efforts, results of in New York City, 493; Institute of Great Britain, 528; interference, Chicago, 590.

Sarcoma of the chest, 395; of the humerus, 585; of the superior maxilla, 598.

Satterthwaite, Dr. T. E., a new apparatus for fractured clavicle, 310.

Sayre, Dr. Lewis A., 575.

Scarlet fever in Illinois, 526.

School training for children, 453.

Schweig, Dr. Geo. M., the treatment of urethral stricture, 103.

Sciatica and nitrate of silver, 394.

Scleroderma, 181, 316.

Scotfield, Dr. D., wound of larynx and œsophagus, 284.

Scrofula, anatomical changes on glands in, 588.

Scrofulosis, milk with lime-water in, 175.

Sea-sickness, 448.

Sea-side sanitarium, 384.

Seguin, Dr. E. C., note on epilepsy, 263; on asylum management, 618.

Seiler, Dr. Carl, notice of book by, 68.

Seville, Dr. C. E. Armand, notice of book by, 568.

Septicæmia, puerperal, 376.

Sex, determination of, in utero, 358, 448, 548.

Sexton, Dr. Samuel, early discovery of the anæsthetic properties of ether, 117; prize essay, motto of, 504.

Shaffer, Dr. Newton M., notice of book by, 39.

Shrady, Dr. Geo. F., editorial articles by, 38, 61, 84, 107, 350, 421, 444, 470, 492, 493, 541, 565, 566, 591, 614, 619; Pine Ridge Papers, experiences of a successful practitioner, 212, 261, 356, 621.

Sickness-rate in Wisconsin, 454.

Simmons, Dr. D. B., a case of nearly fatal hemorrhage after canthoplasty, 487; cholera in Japan, 190, 263; Japanese paper ice-bag, 190; laborandi in cholera, 251.

Singultus, rapid cure of, 277.

Skin and its troubles, 567; chrysophanic acid in diseases of, 69; microscopical examination of, in erysipelas, 594.

Skull, punctate fracture of, 494; punctured fracture at base of, 56.

Smith, Dr. A. A., therapeutics of diarrhœa in children, 25.

Smith, Dr. J. D. S., electro-therapeutics and the American Neurological Association, 118.

Smith, Dr. J. Lawrence, 599.

Smith, Dr. Stephen, notice of book by, 423.

Smythe, Dr. A. G., rhus-poisoning, 284.

Social Science Association, 312.

Soda, benzoate of, and diphtheria, 572; therapeutic uses, 372, 622.

Sore-throat, quinsy, 601; ulcerated, 602; communicable, 603.

South-East Missouri Medical Society, 575.
 Species, crossing of, 452.
 Speculum and dilator, urethral, 263.
 Spermatorrhœa, nervous symptoms connected with, 533.
 Spermatozooids, anomalies of, 210.
 Sphincter palpebrarum, forcible dilatation in blepharospasm, 296.
 Sphincter vesicæ, forced dilatation of, 17.
 Spina bifida, 120.
 Spinal cord, transverse lesion of, in the dorsal region, 361; and syphilis of the brain, 4.
 Spleen, congenital absence of, 11.
 Squill, active principles of, 325.
 Stanton, Dr. M., translation, 69.
 Starr, Dr. Louis, case of carcinoma of liver, with remarks, 8.
 State Lunatic Asylum, notice of, report of, 351.
 State medicine, 328, 435, 500, 572.
 State Society's Transactions, 397.
 Stein, Dr. A. W., urethral dilator and speculum, 263.
 Stethoscope, Edison's, 283.
 Stewart, Dr. Morse, notice of dose-book by, 351.
 Still-birth, evidence of, 468.
 Stillman, Dr. Chas. F., contributions to orthopædic surgery, 196.
 Stillman and Delafield, notice of book by, 110.
 Stomach, dilatation of, 34.
 Stone in the urinary bladder, 449; analysis of one hundred consecutive cases, 308; detection of fragments of, 120.
 Stone, Dr. Solon B., quacks and regulars, 70.
 Strangury, method of prevention of, 393.
 Stricture, spasmodic urethral, controversy on, 574; treatment of urethral, 103.
 St. Bartholomew's Hospital, 526.
 St. John's Guild, 575.
 St. Luke's Hospital, 216.
 St. Vitus's dance following exophthalmic goitre, 1.
 Successful practitioner, experiences of a, 212, 261, 356, 621.
 Successful practitioner reviewed, 405.
 Successful vaccination, 22.
 Sunstroke and inebriety, 24.
 Sunstroke, sequelæ of, 540.
 Superfoetation and double uterus, 351.
 Surgeon-General of the Army, annual report of, 470.
 Surgery and its relation to gynecology, 378.
 Surgical engine, extirpation of the bones of the nose and mouth by the use of, 28.
 Surgical operations, causes of death in, 4.
 Sweet, Dr. A. L., an interesting obstetric case, 439.
 Sympathetic system, new function of, 399.
 Syphilides, palmar, local treatment of, 372.
 Syphilis, nature of, 259; note on congenital, 514; of brain and spinal cord, 4; of nervous centres, 156; sudden deafness from, 279.
 Syphilophobists, State protection for, 222.
 Syringe, a new vaginal and rectal, 23.

T.

Table and lounge combined, 70.
 Tanner, Dr. J. A., note on a case of epilepsy, 214.
 Tanner, Dr. Thomas Hawkes, notice of memoranda by, 351.
 Tape-worm, 211; and salicylic acid, 325.
 Tea, rotten, 576; toxic effects of, 43.
 Teeth, effect upon, by smoking, 193; replanting of, 288.
 Tendon-reflex in the insane, 45.
 Tenement-house act, 62.
 Tenement-house improvements, 542.
 Temperature, hyperpyrexial, 394.
 Tents, compound gelatine medicated, 385.
 Testimony, medical expert, 456, 548; expert, in Hayden trial, 517.

Testicle, Esmarch bandage in strapping, 331; lymphadenoma of, 371; tumor of, 520.
 Tetanus, anatomy of, 105.
 Texas, climate of, 574.
 Therapeutics of diarrhœa in children, 25; present state of, 387.
 Therapeutical Congress, 527.
 Thermometry, cerebral, 490; of the viscera, 420.
 Thigh, supra-condyloid amputation of, 511.
 Thomas, Dr. T. Gaillard, clinical lecture, 313, 529.
 Thompson, Dr., 144.
 Thoracentesis, note on the cause of sudden death during operation of, 139, 188, 189, 331, 402, 476, 501.
 Thoracic sounds, transmission of, 393.
 Thrombosis of portal vein, 59.
 Thuja occidentalis, 216.
 Tinæ favosæ, 34.
 Tiles, deceased unentitled to, 136.
 Tobacco and alcohol, association to prevent abuse of, 455.
 Tonsils, unilateral inflammation of, 521; commoner affections of, 601, 615.
 Tongue, control of, during laryngoscopic operations, 263.
 Torticollis, anæsthesia and hot water in, 205.
 Tracheotomy, bloodless method of performing, 588; for sandburr in the trachea, 455; without a tube, 496.
 Training school for nurses, 88.
 Transactions of the Medical Society of the State of New York, 256.
 Transactions of the Medical Society of the State of Tennessee, 255.
 Transactions of the Michigan State Medical Society, 255.
 Trichinosis, chronic affections of the muscles in, 319.
 Trichinous pork, 135.
 Tubercles of the vagina and cervix, 180.
 Tuberculosis generalized, 570.
 Tumor of the brain, 36; intra-cranial, 521; osseous in orbital cavity, 124.
 Tumors, histology of, 498.
 Typhoid fever, 105, 505, 521, 574; cataract following it, 105; and diseased meat, 203; in infancy and childhood, 385, 409; treatment in Philadelphia hospitals, 466.

U.

Ulcer of rectum, 240.
 University of Maryland, 479.
 University Medical College, New York, 336.
 University of Vermont, Medical Department, 384.
 Urethra, caruncle of, 513; organic stricture of the prostatic, 204.
 Urethrotomy, internal, and lithotripsy, 368.
 Urinary infiltration and abscess, 457.
 Urine, acute retention of, in elderly men, 169; blue, 59; causes of pus in, 49; fat and hematoidin in, 300; incomplete retention of, 105; influence on, by sugar injected into the veins, 394; new test for biliary coloring matter in, 276.
 Urticaria and atropine, 227.
 Uterus, double and superfoetation, 351; fibroid tumors of, 265; infantile, 211; spontaneous cure of inversion of, 453.

V.

Vaccination and recently experienced small-pox (?), 93.
 Vagina, congenital absence of, with pregnancy, 379; pustular inflammation of, 204; tubercles of, 180.
 Vaginismus, 514.
 Vaginitis, 512.
 Vagino-cervioplasty, 193.
 Vallet, Dr., 575.
 Van Derveer, Dr. A., excision of rectum, 207.

- Van Buren, Prof. Wm. H., M.D., LL.D., 38.
 Van Santvoord, Dr. R., on destruction of the cerebro-spinal centres, 333; note on the cause of sudden death in thoracentesis, 189, 402, 501; "negative pressure," 806.
 Veins, air in, 4; of the legs, idiopathic inflammation of, 81; portal, thrombosis of, in cirrhosis of liver, 59.
 Venereal disease, protection from, 523.
 Venesection, 539.
 Ventilation, school, 183; of churches, 493; and spread of contagious diseases, 614.
 Vermont Pharmaceutical Association, 384.
 Version, anterior and posterior, 199.
 Vertebra, cervical, traumatic dislocation of, 320.
 Veterinary Inspection, National Bureau of, 455.
 Viburnum prunifolium, 216.
 Viola-tricolor, 256.
 Virginia State Medical Society, 575.
 Virchow, Prof., 454; as a magician, 454.
 Vision, trial case for testing, 551.
 Vitiligo, incomplete, 231.
 Vivisection, anti-, 238.
 Vivisection, 441.
 Volunteers for yellow fever service, 143.
 Vomiting of pregnancy, 288, 419.
 Vulva, epithelioma of, 440.
- W.
- Waite, Dr. T. C., determination of sex in utero, 358.
 Wales, P. S., Surgeon-General U. S. N., 528.
 Walker, Dr. Edwin, exophthalmic goitre, 355.
 Walsh, Dr. Ralph, notice of ledger by, 567.
 Ward, Dr. J. M., poisoning by *rhus radicans*, 117.
 Wark, Dr. David, notice of book by, 567.
 Warner, Dr. Everett S., *jaborandi* in the treatment of puerperal albuminuria and convulsions, 33.
 Warren, Dr. Joseph H., the treatment of hernia by injection, 367.
 Water, impure, and disease, 445.
 Water, putrefactive changes in, produced by rotten wood, 523.
 Watson, Dr. B. A., antiseptic treatment of wounds, 46.
 Watson, W. Spencer, notice of book by, 398.
 Weather statistics, 408.
 Webster, Dr. David, glaucoma, 370.
 Weights and measures, examination and verification of, 185.
 Weir, Dr. Robert F., urinary infiltration of abscess, 457.
 Wells, Mr. T. Spencer, marble bust of, 353.
 Wendt, Dr. E. C., chronic affections of the muscles following trichinosis, 319.
 West Chicago Medical Society, 186, 281.
 Wheeler, Dr. C. S., artery and torsion forceps, 451.
 Which electric pole shall be employed? 41.
 Whistler, Dr. W. MacNeill, notice of book by, 446.
 White, Dr. F. V., paronychia, 165.
 White, Dr. Oliver, obituary of, 477; bequests of, 575; resolutions, 600.
 White swelling treated by sulphate of zinc, 371.
 Whittaker, Dr. Jas. T., the history of auscultation, 411.
 Whooping-cough, creylio acid in, 549.
 Wickes, Dr. Stephen, notice of book by, 567.
 Wilks, Dr., 527.
 Williams, Dr. Cornelius, case of punctured fracture at base of skull, 56.
 Williams, Dr. S. W., translation, 124; obituary of, 335.
 Wilson, Dr. Erasmus, 575.
 Wilson, Dr. Jas. C., notice of health primer by, 352.
 Woman's Hospital of the State of New York, 201.
 Women, medical, 454; as druggists, 514.
 Worms in the nasal cavity, 326.
 Wood, Dr. Thomas F., successful vaccination, 22.
 Wood oil, 557.
- Y.
- Yale College, changes in medical faculty, 468.
 Yandell, Dr. L. P., 384.
 Yellow fever, 62, 119, 143, 168, 192, 215, 239, 264, 287, 311, 336, 359, 384, 408, 432, 452, 478, 523, 524; Commission, Cuban, 504; pathology of, 401, 519; pathological lesions in the nervous system in, 44; the prevention of, 84; sanitary condition of districts, 24; treatment of, 166, 262.
- Z.
- Zinc sulphate in white swelling, 371.